

Alive



Inside

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- Hippo Expansion
- Creating Bird-friendly Yards
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An insider magazine for members of the Zoological Society of Milwaukee • Winter 2009



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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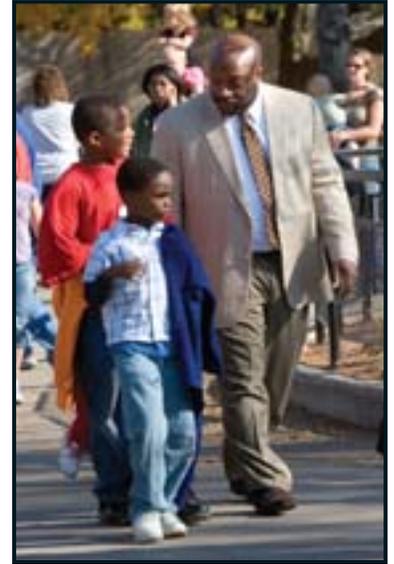
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What better place than the Zoo to learn about life and science? With year-round classes and camps, the Zoological Society offers lessons in biology, ecology, veterinary medicine, animal linguistics, geography, zoology and - yes - even "poopology." When you open our Summer Camps 2009 brochure packaged with this Alive, you'll see a camp called Scoop on Poop. It just shows you how much fun we have with science here at the Milwaukee County Zoo. There's also a camp called Follow Your Nose (on senses), another called Spy Kids (hunting down a Zoo mystery) and a camp called Munch, Gulp, Slurp (on animal eating habits).



We serve nearly 12,000 kids in our summer camps. We also have classes in spring and fall for individual children and for school groups. I'm pleased to note that this year we celebrate 20 years of our Animal Ambassador school programming. This inspiring program sends Zoological Society instructors into schools in many disadvantaged neighborhoods and then hosts these schoolchildren here at the Zoo - some for the first time. Through this program we get children thinking about careers in science (even at zoos and aquariums) and we encourage them to become ambassadors for wildlife to their family and friends. I provided a group from Story School a special tour of the Zoo last fall (see photo above and story on page 10) and was excited and encouraged to see the enthusiasm second graders had for the animals. While I give tours only occasionally, it's always refreshing to see how learning is such an adventure for children.

We try to capture that spirit in our Kids Alive and our Web site Fun Stuff activities for kids. This issue's Kids Alive features fun activities on apes, especially bonobos (pages 12 & 13). Page 14 of Kids Alive has a story on our Programs for Disadvantaged Youth and one girl who loved the summer camp she attended last year (page 14).

While the Zoological Society has an eight-classroom school on Zoo grounds (the Karen Peck Katz Conservation Education Center) and our own educational staff, we depend on Zoo staff to help us teach and provide animal experiences. This partnership between our non-profit Zoological Society and the Milwaukee County Zoo staff creates an ideal learning environment. The whole Zoo becomes a classroom. To get an idea of just how important curators, zookeepers, vets and other staff are in our classes, see the story on page 8.

Learning isn't just for children, either. Adult and teen members of Zoo Pride, the Zoological Society's volunteer auxiliary, find that the Zoo is a great place to learn more about animals and conservation. One Zoo Pride teen took those lessons even farther when she went to study polar bears in the wild last fall (page 15). So visit the Zoo, sign up for a class, join our volunteers or just read the fun animal signs designed by our Creative Department. There's always something new to discover at the Zoo.

Robert Davis

Dr. Bert Davis
 Chief Executive Officer

Alive

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KIDS ALIVE 11-14 Meet a zookeeper who cares for the Zoo's elephants, discover what kids and apes have in common, and read about a summer Zoo camp that made a splash for one girl.

Contributors

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

SUMMER CAMPS

The Zoological Society's Summer Camps brochure is packaged with this *Alive*. Please see directions for how to register.



Pat the cat

[Travel: Africa | Australia]

Passport to Adventure

Travel the world with the Zoological Society of Milwaukee (ZSM). In 2009, we're offering two exotic journeys: to Australia or southern Africa. See below for descriptions. Call Lisa B. at (414) 258-2333 for details or to sign up.



Photo by Mike Nepper

Zoo Director
Chuck Wikenhauser

Southern Africa (Aug. 20-Sept. 3): Travel with Zoo Director Chuck Wikenhauser to Cape Town, Kruger National Park, and other wildlife preserves and landmarks; visit Zambia's Victoria Falls as the post-trip extension.

Australia (Oct. 20-Nov. 1): The Zoo's bird curator, Alex Waier, is your guide to many wildlife parks and sanctuaries as well as to stops in Sydney and Melbourne. Consider an optional pre-trip extension to Queensland to see the Great Barrier Reef and Daintree National Park.

PLANNING A HOME FOR HIPPOS



Bob Dohmen visits the Zoo's hippos, Puddles and Patty.

Robert Dohmen has been wild about hippos for years. “Hippos are an unusual animal to love,” he says, “but I think they’re fascinating and charismatic.” One of his best memories is seeing a hippo up close while on safari in Africa. Dohmen, who lives in Mequon, wants visitors to have the same experience at the Milwaukee County Zoo. That’s why he’s helping build a new home for the Zoo’s hippos. And what a home it will be! Picture a large, glassed-in pond that would let zoogoers watch the animals swim from just inches away.

Dohmen, president of the Dohmen Family Foundation, presented a check for an initial \$1.75 million at a Zoo press conference on Oct. 8. The initial check will cover the exhibit design and an endowment established by Dohmen’s mother, Mary Dohmen, an officer and director of the foundation, to maintain the exhibit once it is built. The Zoo’s hippos, Puddles and Patty, looked on as Dr. Robert Davis, Zoological Society president and CEO, and Zoo Director Chuck Wikenhauser accepted the gift. The exhibit cost is estimated to range from \$9 million to \$12 million, and the exhibit is expected to be privately funded.

The new exhibit also will feature extra space to let the Zoo house three adult animals and several youngsters (the Zoo’s current hippo exhibit includes an outdoor yard and pond, an indoor pool and two hippos). Interactive signs at the exhibit will teach zoogoers about these threatened animals. Once constructed, the exhibit will be one of about 10 underwater-viewing hippo exhibits in the United States. Visitors will be able to view the

hippos under water at eye level – just as they can do with the Zoo’s polar bear underwater-viewing area.

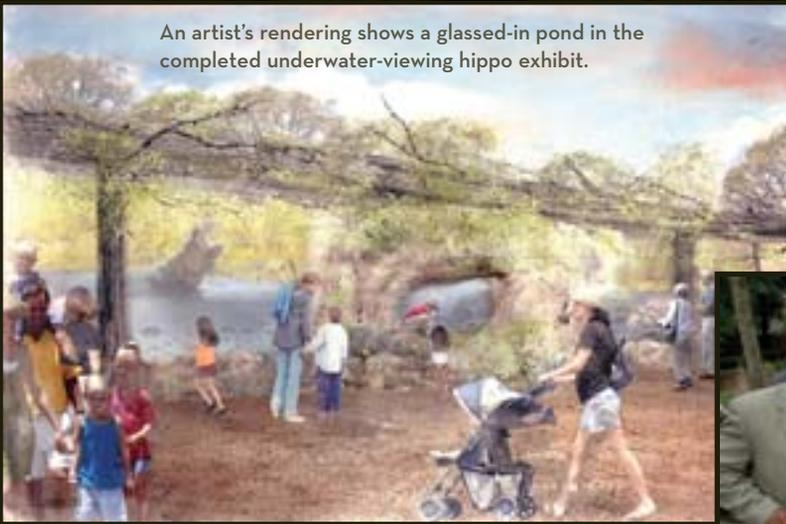
“The Zoo and the Zoological Society are extremely grateful to Mary Dohmen and Robert Dohmen for this wonderful gift to the entire Milwaukee community,” said Dr. Davis. Added Wikenhauser, “This is an exciting kick-off to renovations of the Zoo’s pachyderm* area. We appreciate Mary Dohmen’s recognition that new exhibits require long-term maintenance, and her establishment of an endowment to cover these costs.” (*Pachyderm means thick-skinned animal. Hippos, rhinos and elephants are all pachyderms. See page 11 for a story on a zookeeper who cares for the Zoo’s pachyderms.)

Robert Dohmen, executive vice president of Milwaukee’s F Dohmen Company (a health services firm), and his parents – Mary Dohmen and her late husband, Fred Dohmen – have been longtime members and contributors to the non-profit Zoological Society. Since the early 1980s, they have donated to many annual appeals and supported Zoo animals through the Zoological Society’s animal sponsorship program. Fred often went to Washington Park Zoo (the Zoo’s previous location) as a child, Robert says. Mary, a teacher, loved educating children about wildlife. The hippo exhibit is a tribute to his parents, Robert Dohmen says, as well as a gift to zoogoers.

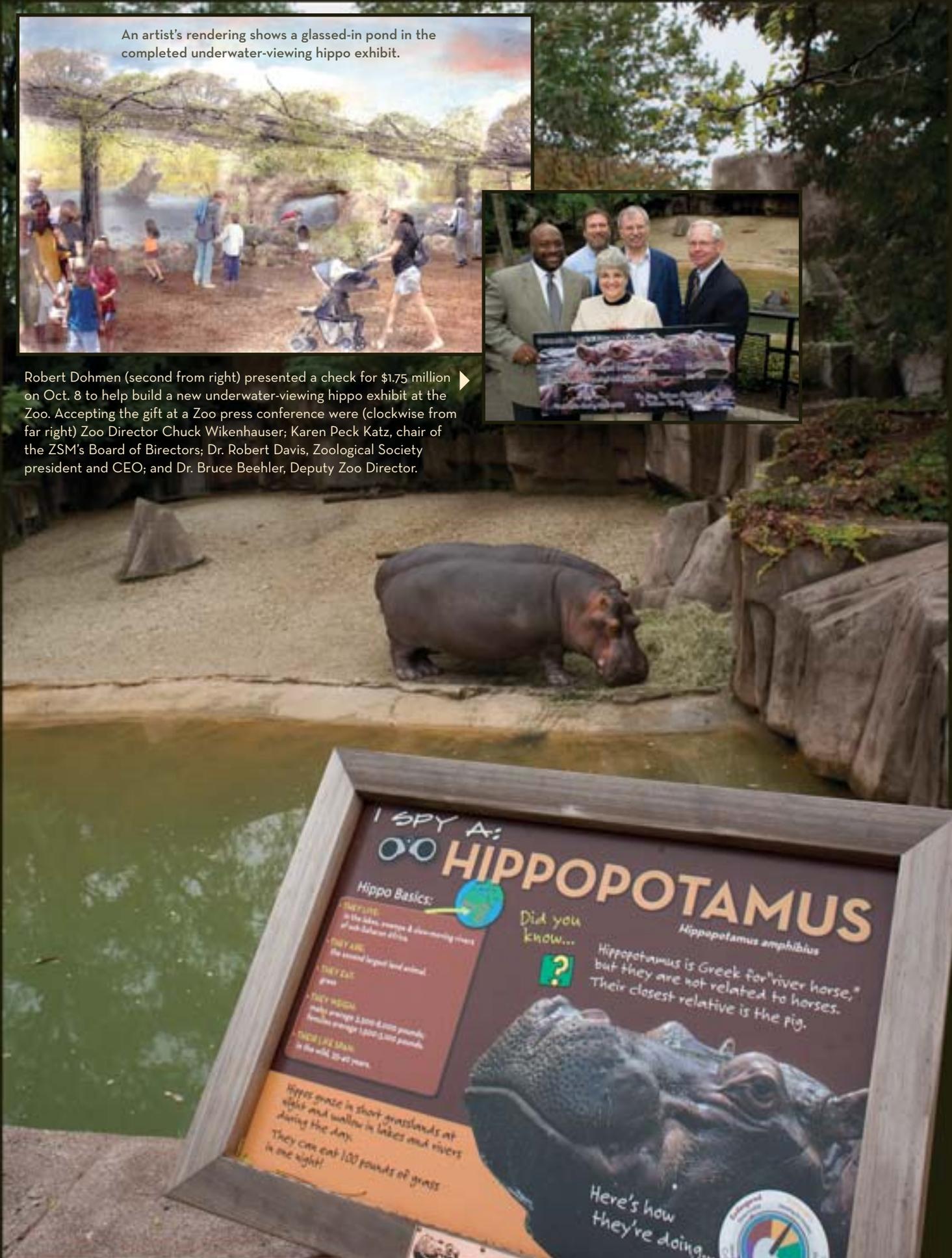
By Julia Kolker

The Zoo’s current hippo exhibit includes a yard with a pond, two hippos and signage. The new underwater-viewing exhibit will feature a large, glassed-in pond, extra space to house three adult hippos and several youngsters, and interactive displays.

An artist's rendering shows a glassed-in pond in the completed underwater-viewing hippo exhibit.



Robert Dohmen (second from right) presented a check for \$1.75 million on Oct. 8 to help build a new underwater-viewing hippo exhibit at the Zoo. Accepting the gift at a Zoo press conference were (clockwise from far right) Zoo Director Chuck Wikenhauser; Karen Peck Katz, chair of the ZSM's Board of Directors; Dr. Robert Davis, Zoological Society president and CEO; and Dr. Bruce Beehler, Deputy Zoo Director.



I SPY A:
HIPPOPOTAMUS
Hippopotamus amphibius

Hippo Basics:

- THEY LIVE:** In the lakes, swamps & slow-moving rivers of sub-Saharan Africa
- THEY ARE:** The second largest land animal
- THEY EAT:** grass
- THEY WEIGH:** Males average 2,500-4,000 pounds; females average 1,500-3,000 pounds
- THEY LIVE AS LONG:** in the wild, 30-45 years

Did you know...

Hippopotamus is Greek for "river horse," but they are not related to horses. Their closest relative is the pig.

Here's how they're doing...

Hippopotamus is short grasslands at night and wallow in lakes and rivers during the day. They can eat 100 pounds of grass in one night!

Robert Dohmen

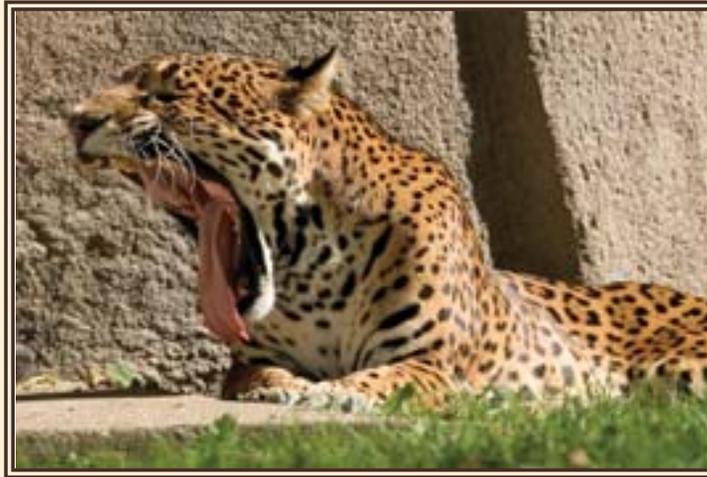


A JAGUAR SAVED

FROM DEATH



Intense golden eyes and a pensive stare make Pat the jaguar captivating to look at. As visitors admire this cat from Belize, it's hard to imagine that it's a miracle he is even here. "He's sort of lucky to be alive because he was a cattle killer," says feline zookeeper Chris John. Jaguars in Belize are often looked upon as pests and destroyed when they kill valuable livestock. Pat was rescued by a wildlife refuge organization and shipped to the Belize Zoo so he could be "rehabilitated" and then join a captive-breeding project.



His jaw is wide, but his teeth are short. Pat damaged most of his big canines and had to have root canals.

Pat's life is an example of what can happen to wildlife in countries where jungles are cleared for development and there is little or no strategy to address predation by big cats. Pat, for example, was killing cattle belonging to farmers in a northern Belizean village called Honey Camp Lagoon. Instead of being killed, Pat was trapped and brought in 2004 to the Belize Zoo, which had started a Jaguar Rehabilitation Program that year. Jaguars that repeatedly kill livestock or domestic animals, or those that have been injured and cannot live safely in the wild, can be part of the program (Pat was the third cat to join). Pat had sustained serious damage to all four of his canines, which may have driven him out of the jungle to stalk cattle versus more challenging prey. In Belize, he got five root canals to repair his teeth.

Pat's journey motivated one Mequon couple, who would like to stay anonymous, to devote their retirement to helping protect jaguars in the wild. They were inspired by Sharon Matola, founder of the jaguar rehabilitation program and director of the Belize Zoo. So impressed were they with Matola's heartfelt dedication that they traveled back and forth to the Belize Zoo for two years.

When they met Pat, the connection was instant. The couple would watch and work with Pat daily, and played a role in how the jaguar acclimated to humans. He would gently eat chicken right from their hands through the fence. "You can't imagine the power of just sitting with Pat, watching him, working with him and feeding him," the woman from Mequon says. Gradually, Pat would rub his face against the fence that separated him from his caregivers and roll over. This showed he was comfortable with

them and felt in control. At the Belize Zoo, Pat didn't respond to many behavioral cues the zookeepers and the couple were trying to teach him. "He's an independent thinker," the Mequon woman says with a laugh. However, Pat did learn how to do "paws up," where he would put his paw up against a human hand alongside a fence. (He still will do "paws up" here at the Zoo when a zookeeper puts a hand to the glass of his exhibit – see photo.)

Soon Pat would be ready for his trip to Milwaukee, and the Zoo was getting ready for him. An anonymous donation allowed

The New Oz?
Resembling the Tin Man from "The Wizard of Oz" are metal-sheathed trees in the refurbished jaguar yard – put there to keep Pat the Cat from climbing too high.



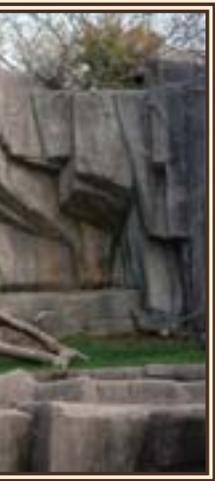
the Zoo to refurbish the jaguar yard and holding area with log climbing structures and other amenities. Metal sheathing and cones were used to cover trees in the yard so Pat couldn't climb too high (see photo).

Taking jaguars from the wild is always a last resort, but zoos can give them a new purpose. When these wild jaguars come to zoos and breed, they can improve the captive jaguar population by increasing the genetic diversity. The Association of Zoos and Aquariums' Jaguar Species Survival Plan manages jaguar breeding throughout accredited North American zoos. Zookeepers hope Pat will breed with Stella, the resident female, in a few years. As the Mequon woman expresses it: "Pat will help ensure that



Pat the cat patrols the Zoo's jaguar exhibit, which resembles a Belizean forest.

"Paws up!" Pat gives zookeeper Valerie Werner a friendly paw against the exhibit glass when Werner puts her hand on the glass.



generations of jaguars will survive to help educate us all about these beautiful and elusive animals."

After much anticipation, Pat the cat arrived in Milwaukee in March of 2008. After a few months of treatment and recovery from parasites (common in jungle cats), Pat was introduced to the indoor exhibit on Sept. 1, 2008. Initially, most of the glass in the exhibit was covered with paper to reduce his anxiety at seeing visitors or other big cats in the building. He had never been behind glass before. The paper was removed over two

weeks to get Pat adjusted to the busy atmosphere of the Florence Mila Borchert Big Cat Country. The exhibit also was roped off to keep visitors from getting too close before the jaguar had time to adjust to crowds. With the African lions to the left of him and the Amur (Siberian) tigers to the right, and African cheetahs across the hall, Pat vigilantly observed all the new faces. For the first time, he saw cats that were bigger than he was. Pat would have occasional "stare downs" with the lioness Sanura. Compared to some other big cats, Pat adjusted fairly quickly to his dramatically new environment, says zookeeper Valerie Werner.

Pat's next challenge was the outdoor exhibit. At first Pat was unsure about the open space, staying close to the doorway. "Jaguars are cautious and observant," says Chris John. Progressively Pat grew more adventurous, exploring his boundaries and adjusting to new sounds. He had a lot to take in: geese flying, zoogoers staring down from an overhead sky ride, and the train whistle blowing. When he started draping himself on the logs, Werner knew he was comfortable. New toys were put into the jaguar exhibit, indoors and out. You sometimes can see Pat rolling around his indoor exhibit with a barrel-sized, hard-plastic ball, dragging it from one end of the exhibit to the other – almost like a house cat with a ball of string. "Pat's toys are in good shape because he has no canines to tear them apart," jokes Werner.

The Mequon couple continue to keep watch over Pat to make sure he's content. They're dedicated not just to him but also to saving other jaguars. With so many big cats facing the danger of extinction, why single out the jaguar to support? Jaguars were considered royal cats by the ancient Maya civilization. And, unlike lions and tigers, jaguars are native to the Americas. "They're OUR cats," says the Mequon woman. "All big cats need help, but the jaguars are ours. If we don't help them, who will?"

By Noelle Steffen With Julia Kolker



LIVING CLASSROOMS

INSIDER VIEWS

Starbuck the bat was hanging from Rhonda Crenshaw's hand, just a foot away from a class of 3-year-old children. "It's great to see the kids' faces when they get to see a bat up close," said Crenshaw. "I really enjoy using live animals to teach children. I think it's a huge benefit." The kids and their parents were at the Milwaukee County Zoo in October for a Zoological Society class

on bats. "Kids learn more from up-close experiences," added Crenshaw, who is supervisor of the Zoo's Small Mammals Building. "Kids love to talk to zookeepers and are fascinated by the animal. It grabs their attention while giving you a chance to share information that they may not otherwise pay attention to."

No question about it: Animals teach. The Zoo provides a living classroom. And Zoological Society of Milwaukee (ZSM) classes and summer camps are popular for that very reason. While ZSM instructors put a lot of effort into their curricula and classroom activities, the zookeepers and other Zoo staff help make the material come alive. Their sense of caring about the animals comes through in a very clear way, says James Mills, the ZSM's education director. Children pick up on that. "That helps us



Petting Cody the miniature horse during the Horses class was Isabel Valentine, 2, with her mom, Monique, of Milwaukee. Photo above right: Alex Waier (left), birds curator and manager of the Northwestern Mutual Family Farm, encourages his staff to help with Zoological Society classes such as a fall 2008 class on horses. Here he talks with staff Wilson Gathirimu and Patti Sadowski.



Starbuck the fruit bat shows off his wings in a Zoological Society class on bats last October. Small Mammals Supervisor Rhonda Crenshaw (above) gave the 3-year olds and their moms a behind-the-scenes tour. From left are Barbara Clayton with son Nathaniel (red hat) of Menomonee Falls and Mimi Goller with daughter Vivian of Franklin.

teach about conservation,” says Mills, “because you have to care about animals before you can care about conserving them.”

The partnership between the private, non-profit Zoological Society and the county-run Zoo shines when it comes to education. While the ZSM officially runs the vast majority of the education programs at the Zoo (and many off-site), it would be nearly impossible to do so without the help of Zoo staff, says Mills. Zoo staff have personal stories about the animals and they also can explain the bigger picture: about the science-based, conservation functions of zoos.

That includes all levels of staff, from zookeepers to building supervisors and from veterinarians to curators (who manage the Zoo's collections). For example, during ZSM summer camps last year, all three Zoo curators participated in career camps for kids. Craig Berg, aquarium and reptile curator, told teens about fish research and conservation projects (ranging from turtles to snakes) that he and other staff conduct at the Zoo and in the field. Alex Waier, the bird curator, talked about installing soft floors in the flamingo building to protect the birds' feet. And Jan Rafert, curator of primates and small mammals, told a story about how difficult it can be to help animals (this is a shortened version):

Viaje the bonobo lived in a Mexican wild-animal park for many years with his mate, until she died. Bonobos are used to living with others. These great apes don't do well by themselves. The Zoo owner cared a lot for Viaje and wanted him to be happy. So the owner went to meetings of the Bonobo Species Survival Plan (SSP), a committee of the Association of Zoos and Aquariums, and asked for help. Dr. Gay Reinartz, who is the ZSM's conservation coordinator and also the Bonobo SSP coordinator, said Viaje would do better if he were in a zoo with a group of bonobos. Because Viaje's mate had died of a disease that may or may not have been tuberculosis (TB), which is contagious, specific tests had to be done before he was transferred to a zoo. Not many U.S. zoos were willing to do the testing. Jan Rafert and Barbara Bell, the Milwaukee County Zoo's main bonobo keeper, said our zoo would test Viaje and accept him. They had to follow very strict rules set by the U.S. Centers for Disease Control (CDC) to make sure Viaje was not sick. The Zoo had to get many, many different permits.

Everything was nearly ready when another zoo brought a lemur from Europe into the U.S. but ignored all of the CDC's rules. CDC was very upset. The agency told our Zoo that the only way it could transport Viaje to the U.S. was if a culture from Viaje's throat was taken and sent to a lab in North Carolina to check for TB. Dr. Vicki Clyde, the Zoo's staff veterinarian, and Rafert went to Mexico to do the testing and prepare Viaje

for shipping. The sample had to be shipped within a limited time. But the lab had put the wrong code on the shipping label, and FedEx justifiably refused to ship it until the label had been properly completed per federal rules, including being typed with a typewriter, not written by hand. But Rafert didn't have a typewriter. A FedEx woman took pity on him and drove him from place to place looking for a typewriter. They finally found an old one in storage. It had many problems, but eventually they were able to re-type the label and FedEx shipped it. Rafert sent the woman roses and a bonobo shirt as thanks. Then Viaje was quarantined at the St. Louis Zoo for 90 days before being sent to Milwaukee. (“Viaje,” which is Spanish for “journey,” was quite an ironic name.) The whole process took four years. “And he's not going anywhere else as long as I'm here,” says Rafert.

It's this knowledge of an animal's personal history and the demonstration of personal dedication that can draw children to conservation, said Mills. From listening to the animal staff, children “bond” more with animals. And they gain a broader perspective. They see the animal

as an ambassador of a species that has an important place in nature.

Rhonda Crenshaw is keenly aware of that educational process. Many people don't like bats and focus on rare news reports of bats carrying diseases such as rabies. In ZSM bat classes, kids learn that bats are helpful and very important to humans, especially because bats eat millions of mosquitoes and other insects. “Getting to know an animal on a more personal level can change negative perspectives,” said Crenshaw. “Children leave with a new appreciation for the species. They learn something important that they will remember and tell people about for a long time.”

By Paula Brookmire with Perel Skier

Go to www.zoosociety.org for ZSM class openings and to register.

Zoo staff help raise ornate box turtles, says Craig Berg to children in a 2008 Zoological Society summer camp on careers at the Zoo. Berg is aquarium and reptile curator.



As bonobos play in the background, Jan Rafert, curator of apes and small mammals, answers questions from Kelsey Combs, 12, of Burlington. Kelsey was in a careers summer camp at the Zoo last August.



Role Model for Zoo Careers

Second-grader Mercee Fifer wants to be a veterinarian when she grows up. When she came to the Milwaukee County Zoo with classmates last fall, she had questions: How do you become a vet? What do vets do? Dr. Robert Davis was on hand with answers. He's a veterinarian, as well as president and CEO of the Zoological Society of Milwaukee (ZSM).

Mercee and her class from Milwaukee's Albert Story Elementary School, 3815 W. Kilbourn Ave., met Dr. Davis during a field trip that was part of the ZSM's Animal Ambassador program. This science-education program introduces animals and conservation to second-through-fifth-grade children from metro-Milwaukee schools in economically disadvantaged neighborhoods. The program, which celebrates its 20th year in 2009, encourages kids to consider science careers and become ambassadors for wildlife.

Dr. Davis is a kind of ambassador himself. He's an accomplished vet and educator who has worked at the National Zoo in Washington, D.C., at Zoo Atlanta in Georgia, and at Chicago's Lincoln Park Zoo, among others. Now, he runs the non-profit ZSM. A role model for children who might not normally think of a career in science, he encourages kids to study science and conservation. Last fall, he was honored by the Association of Zoos and Aquariums (AZA) with the AZA Outstanding Service Award for helping advance minorities in the sciences and provide zoo



Dr. Robert Davis takes a question from a Story School student as he gives the class a tour of the Zoo's elephants. Deontay Long (far left) raises his hands to ask another question.

career opportunities for students from diverse backgrounds. When he has a break in his schedule, Dr. Davis gives Zoo tours to children's groups or Animal Ambassador classes (although that's not a regular part of the program).

One sunny day in early November, Dr. Davis led the Story School kids through the Zoo's Florence Mila Borchert Big Cat Country. The children scrambled to see animals such as lions and tigers up close while Dr. Davis shared feline facts. Baby lions are called cubs, he said. Female lions do most of the hunting. The kids then toured the Zoo's elephant and giraffe exhibits. "There are two types of elephants: African and Asian," said Dr. Davis.

"How can you tell the difference?" The kids didn't know. He pointed to the ears. "See how the ears are shaped like the continent of Africa? That's how you know these are African elephants." The kids crowded around Dr. Davis, hands raised, ready to ask more Zoo questions.

"The children were really excited to come here," said Story School teacher Colleen Donovan. When Dr. Davis asked kids to name favorite animals, the answers came quickly. Lions, some said. Snow leopards, Siberian tigers and penguins also got a mention. These animals are endangered or threatened in the wild.

As head of the ZSM, Dr. Davis works to conserve endangered species at the Zoo and abroad. Later this year he will even appear on Time Warner Cable's Wisconsin on Demand channel talking about how the ZSM and the Zoo work together to help animals.

Children are animal lovers by nature, Dr. Davis said. Community leaders can inspire kids to help animals through science and conservation. When he was growing up in Chicago, Dr. Davis loved watching a children's TV show that featured a veterinarian from the city's Lincoln Park Zoo. Today, Dr. Davis himself works to encourage a generation of kids to become animal ambassadors – now and long into the future.

By Julia Kolker



Dr. Davis tells schoolchildren about Malinde the giraffe as the long-necked animal looks down at them.



Kids ALive

Pachyderm Pal

Erin Dowgwillo loves animals, and she wants them to love her. When she was growing up, she wanted to be an animal doctor, a veterinarian. In high school, she changed her mind after she visited zookeepers at the Henry Vilas Zoo in Madison, Wis. "Animals always run away from the vet," she says. "I wanted to be someone animals liked to see." Animals often like the keepers who feed them.

So Erin Dowgwillo became a zookeeper. She works with the Milwaukee County Zoo's thick-skinned animals, called pachyderms. Now she gets to feed hundreds of pounds of food each day to hippos, rhinos and elephants. They are all pachyderms. (The Zoo is building a new hippo exhibit. See the story on page 6.) The animals she sees most are the elephants. They each have their own individual personality, like people," she says. "You can tell if they are having a good day or a bad day." At the Kansas City Zoo, where she worked before coming to our Zoo in March 2008, she liked Lois the elephant. When Lois felt ignored, she would throw water or dirt at people. "I remember days where I'd be wet because of her."

Training the elephants to take part in their own health care is a big part of her job. The Zoo's two elephants, Ruth and Brittany, are trained to lift their feet. This helps zookeepers check their footpads for rocks and make sure their nails don't have cracks. Zookeepers have to be patient. Ruth likes to play in her stall a lot. Keepers sometimes have to wait until she is done playing so she listens better.

Feeding the elephants can be fun. Sometimes Erin Dowgwillo makes their food a puzzle. She might hide their favorite hay in a large plastic barrel. Then the elephants have to figure out how to get the hay out of the barrel. This way the animals have to work for their

food, much like they would in the wild. "Activities that get the animals moving and using their minds to figure things out are my favorite," she says.

Erin Dowgwillo loves animals so much that she doesn't mind working with dangerous mammals such as hippos or



with the largest mammals on land: 8,500-pound elephants. She even has kind of a "zoo" at home. She has four cats, a rat and a bird as pets. Her college education has helped her understand how important it is to save endangered animals. (She has a bachelor of science degree in biology and wildlife management from the University of Wisconsin-Stevens Point.) "Elephants are intelligent, wonderful animals that need our help to survive."

By Noelle Steffen

Apes Like Us

Do you visit the apes when you come to the Zoo? Watch what they do. Does it look familiar? These animals are more like humans than you may think. Apes like to play games like hide and seek and tag, says zookeeper Barbara Bell. At the Milwaukee County Zoo, she is the main bonobo keeper. Bonobos are called “great apes.” So are chimpanzees, but we don’t have chimps at the Zoo. The other great apes we have here are gorillas and orangutans. Most of the apes eat some of the same snacks that you like. Barbara Bell says the bonobos like grapes, bananas, yogurt and juice.

Chimps and other apes in zoos often eat fruits as snacks. Some gorillas like watermelon. Learn how alike we primates really are as you try the activities on these pages. Then visit our Web site, www.zoosociety.org/funstuff, for more things you can do at the Zoo this winter when you visit the apes and monkeys.

So Like Us

Circle the five things below that human children have in common with bonobos and chimpanzees.

1. Enjoy playtime
2. Like to eat fruit
3. Wear tennis shoes
4. Like spending time with others
5. Enjoy going to McDonald’s
6. Like playing soccer
7. Can walk upright on two feet
8. Collect baseball cards
9. Communicate with sounds
10. Travel in cars



bonobo

stock photo



chimpanzee

The bonobo (above), chimpanzee (left) and human boy (Aaron Steffen, 9, of Port Washington) are all primates. They are a lot alike. Kids and apes both enjoy playing games, going barefoot, and having fun.

Know the Bonobos

The book *“Bonobos: Encounters in Empathy”* by Jo Sandin tells the story of bonobos at the Milwaukee County Zoo. In chapter 2, *Divas and Such*, you can learn more about why the apes listed below are unique. (You can buy the book online at www.zoosociety.org.) Match each bonobo with the number that describes this ape.

1. This bonobo was named after a woman who runs a bonobo sanctuary in the Congo.
2. Within months of arriving in Milwaukee, he learned the words “hands,” “back,” and “feet” on his own.
3. His paintings were shown on the “Late Night With David Letterman” TV show in August 2005.
4. This bonobo has been a leader of the group since the bonobos came to Milwaukee in 1986.
5. This bonobo’s name means “journey” in Spanish.



e. viaje



d. Lomako



c. Claudine



b. Maringa



a. Brian

Photos of Viaje, Brian and Lomako by Mark Scheuber; other photos by Richard Brodzeller.

Paint Like a Bonobo

Did you know bonobos could paint? Zookeepers let them paint once in a while as a fun break from their routine. Lody the bonobo does fingerpainting (see photo). Unlike the bonobo, you’re probably used to painting. So give yourself a challenge. Try painting with a brush in your mouth or between your toes (like Aaron Steffen does at right). Your paintings might look more like a bonobo’s.

Materials you will need:

- Several colors of washable paint
- 9- by 12-inch sheet of white, heavy construction paper
- 1 cup half filled with water
- Newspapers
- Paintbrushes

Directions:

1. With a parent’s permission, put down newspaper on the floor. A kitchen floor or floor without a rug is best so you can clean up any accidental paint spills.
2. Set out your paints and water in front of you.
3. Hold a paintbrush either between your teeth or toes and paint!



How does your artwork look? To compare your painting to the art done by bonobos at the Milwaukee County Zoo, go to our Web site at www.zoosociety.org/bonoboart.

Summer camp at the Zoo was a real splash for Deauvia Wilder. Deauvia, 9, came to a Zoological Society summer camp called Marine Marvels last June. The camp was all about ocean creatures. She even touched some of them (see photo) in the Milwaukee County Zoo's special summer exhibit called Sting Ray & Shark Reef, sponsored by Sundance Vacations. Deauvia got the scoop on ecosystems (a place where plants and animals live together). She made a mini "ocean" using a water bottle and plastic fish. She toured the Zoo. "It's my first time here and I like it!" she said.

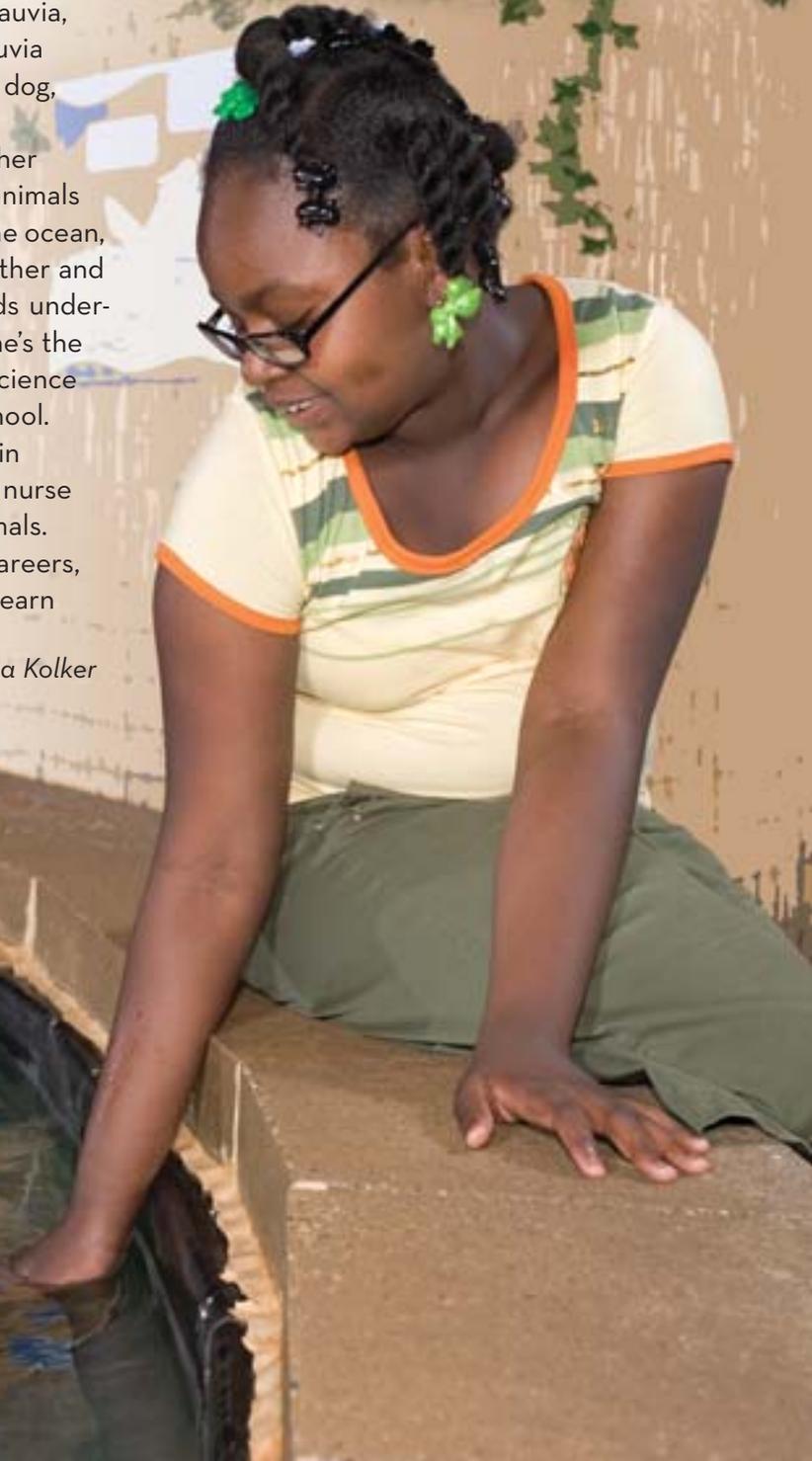
Deauvia came to the camp with her classmates from the Mary Ryan Branch of the Boys and Girls Club. The Zoological Society's Programs for Disadvantaged Youth made the trip possible. These programs open summer camps at the Zoo to Milwaukee-area kids who normally might not be able to attend. Last summer, 421 kids from seven community centers came to our camps. Sponsors such as U.S. Cellular, Safe Alternatives for Youth and an anonymous donor made these camp experiences possible.

Zoological Society summer camps help kids learn a lot about animals, said Deauvia's mom, Shalandra. Kids such as Deauvia, an animal lover, are hungry for knowledge. At home, Deauvia watches the TV channel Animal Planet and cares for her dog, Max. She teaches her brothers and sisters about nature.

Thanks to the Marine Marvels camp, Deauvia became her family's expert on symbiosis. What's that? It's when two animals or plants help protect each other, explained Deauvia. In the ocean, anemones (flowerlike sea animals) and clownfish live together and protect each other. Learning about ecosystems helps kids understand how the natural world works, said Julie Pickard. She's the Zoological Society educator who taught the camp. This science information also ties into subjects kids are learning in school.

Deauvia, a third-grader at St. Leo's Elementary School in Milwaukee, plans to use her science smarts to become a nurse when she grows up. Or she may want to work with animals. Either way, Zoo camps get kids thinking about possible careers, Deauvia said. Plus, "If kids don't come here, they'll never learn some of this stuff!"

By Julia Kolker



Becca Pfeffer poses next to a helicopter after flying to see a polar bear den.



Photos by Becca Pfeffer

they're the new generation of "ambassadors" for polar bears and the environment.

Climate change was a hot topic for debate at the camp, Becca says. Some scientists, she learned, think climate change is melting ice that polar bears need to survive in the Arctic. A helicopter ride doubled as a learning experience when students flew to see an abandoned polar bear den on Manitoba's tundra. Weakened permafrost caused the den to collapse, says Becca. Loss of dens makes it hard for polar

bears to breed and rear healthy offspring.

The trip wasn't all about science. Becca and fellow ambassadors formed tight friendships. They lived in a tundra buggy, a long, train-like car on giant wheels. On October 7, Becca wrote in her journal: "We are about 10 feet above

Polar bears explore the giant wheels of a tundra buggy, a train-like car that takes visitors through Manitoba's tundra. Becca Pfeffer took this photo from inside the buggy.



POLAR BEAR ADVENTURE

It's not every day that a lesson about polar bears gets interrupted by an actual bear sighting. At Polar Bear International's (PBI's) teen leadership camp in Churchill, Manitoba, that's business as usual. Just ask 17-year-old Becca Pfeffer of South Milwaukee, who was part of the camp in Canada last October. "As soon as we spotted the bears, we ran to see this spectacular sight," Becca wrote in a journal she kept during the week-long program. "Pictures were taken, dreams were fulfilled and minds were inspired. We oohed and ahed while the bears toddled back and forth until they found a comfortable spot for the night."

If Becca's experience sounds like it was out of a storybook, well, it was. For starters, she won the paid trip and airfare to Manitoba as part of an American Association of Zoo Keepers contest for Milwaukee-area teens. As her entry, Pfeffer presented a slide show about polar bears to a panel of Milwaukee County Zoo staff. PBI, a conservation group, hosted 17 teens from around the world Oct. 2-9, 2008.

Polar-bear sightings like Becca's are becoming rarer, says Robert Buchanan, president of PBI. In May 2008, the U.S. Department of Interior classified the polar bear as threatened under the Endangered Species Act. PBI predicts that polar bears, the world's largest land predators, are in danger of extinction by the end of the 21st century. That's where Becca and her fellow students come in. Bright, energetic and conservation-minded,

the ground, which allows us to see arctic foxes and polar bears. We haven't touched the earth in over four days, but we get to experience things that other people cannot. We find ourselves swaying with the wind with each big gust; it almost feels like the wind is going to take us away, or rock us to sleep."

Sleep, however, is the last thing Becca and fellow ambassadors wanted to do when they returned home. The trip helped her think of ways to save the environment and polar bears, Becca says. Recycling, planting trees and using fewer disposable goods such as plastic bags and straws can all reduce climate change, she explains. Becca even hopes to start a recycling and tree-planting program at South Milwaukee High School, where she's a senior. She also plans to talk about her trip with science classes and with Zoo Pride, the Zoological Society's volunteer auxiliary (Becca is a member). Someday, Becca says, she could even work with polar bears in the wild as a veterinarian or a scientist. The trip, she says, "made me want to help polar bears even more. I'd return to Manitoba in a heartbeat."

By Julia Kolker

Tundra buggies were Becca's home in Manitoba, Canada, for a week.

To see more of Becca's photos from Manitoba, go to www.zoosociety.org/polarbearpix.

GOING Wild FOR Birds

By Paula Brookmire



Donna Dewhurst, USFWS



A wild Wisconsin winter means more than just snow and cold. One of the season's pleasures is watching birds drop by for seeds at a bird feeder. If you don't have a feeder, it's not too late to get one for your yard or perhaps for your workplace. It can be very satisfying to help these tiny creatures survive in a world of white. In fact, there are many things you can do to help birds year-round, especially if you own land. Even if you don't own a home or a farm, you may be able to persuade your school, workplace or parks department to install feeders or make other changes to help birds. Winter is a good time to plan for spring. The best way to feed birds during spring and summer is to plant native plants, which provide the insect food birds need during migration and the breeding season.

In 2008 the Zoological Society of Milwaukee published a guide on "How to Manage Your Land to Help Birds," available online.* On these pages we want to bring that guide to life by showing you bird-friendly changes you can make on your property. We visited the backyard of Vicki Piaskowski,* the main author of our bird guide, to see how it has become a bird paradise. Since 1986 she and her husband, Larry Hopwood, have made many changes to their Wauwatosa, Wis., backyard that benefit birds. Not only have they seen a huge increase in migratory birds that use the backyard, but many butterflies also visit their prairie garden and area around the small pond.



YARD FOR BIRDS: Every year Vicki Piaskowski and Larry Hopwood have reduced the amount of grass in their 60-by-80-foot backyard. (Their son Kelley also helped.) First they removed non-native plants and prepared the soil. Then they put in a woodland wildflower garden. The following year, they added native shrubs on the north side of the yard. The next year, they put in a prairie garden and added white cedars and native shrubs on the east side of the yard. The year after, the south side got white pines, hemlock and native shrubs. The last significant addition was a small pond (in back of Vicki) surrounded by native plants, including blue flag iris. Since then, Vicki has added more native plants, including prairie plants and fruiting shrubs. The entire backyard is designed to provide habitat and food for birds. Native plants need a lot less water and maintenance. Since they are adapted to our climate, they grow very well once established (but you still need to weed your gardens). Note the red bird feeder (page 17) with a black baffle that sways if predators try to climb the metal pole. Such baffles cost about \$20 online or at stores that sell bird feed. This feeder is filled with black-oil sunflower seeds, eaten by a variety of birds, including black-capped chickadees, northern cardinals, and nuthatches.

PRAIRIE GARDEN: With a paper bag, Piaskowski collects seeds from a thin-leaved coneflower (yellow flower) in her prairie garden in September. The purple plants are New England asters. “I scatter the seed in other areas of the prairie garden or give it to friends,” she says. “To start a prairie garden, first eliminate the persistent weeds. I did this by tilling the soil and then pulling the weeds that grew there for two years. Some people cover the soil with newspaper or old carpets or use herbicide to kill the weeds. I then purchased seed from Prairie Seed Source and planted the seed in spring. After prairie plants began to grow, I continued to remove weeds. Once the garden was established, I added some native prairie plants to a few bare areas. For small prairie gardens, it’s probably easier to buy native prairie plants rather than starting from seed.”



FRESH BERRIES, DEAD TREES: American robins, gray catbirds and Swainson’s thrushes are some of the birds that love the elderberries in Piaskowski’s yard. The dead tree (called a snag) in the background is a hawthorn that was diseased and needed to come down so that branches didn’t fall on the neighbor’s garage. “I worked with a tree service to leave as much of the tree as possible and create a snag where birds could find food and excavate nest cavities,” says Piaskowski. “So they removed a lot of the tall branches and left what can be seen here.”



SMALL POND: Piaskowski cleans the solar panel that powers a fountain/aerator in her pond. She bought the fountain for about \$100 from Plow and Hearth, but you also can get fountains and aerators at bird stores and garden centers. Larger rocks on one side of the pond allow larger songbirds such as American robins to stand and bathe. Smaller songbirds, like warblers, will fly back and forth through the fountain’s mist. The pond also has goldfish, whose job is to eat mosquito larvae and prevent mosquitoes from hatching in the pond. In winter, the pond is drained and the fish come inside because it wastes too much electricity to keep the pond from freezing. However, Piaskowski uses a small, heated bird bath in winter, and it’s visited by northern cardinals and black-capped chickadees, among other birds.

FOOD & SAFETY: From the back of her house, Piaskowski looks out a window decorated by several hummingbird decals to make the glass visible and prevent birds from flying into the window and hurting themselves. Under the decal is a native low-bush honeysuckle. All the plants she has added to her backyard are native to Wisconsin. To the left is a woodland wildflower garden and shrubs including common elderberry, wild gooseberry and gray dogwood. In the center of the yard (directly behind decal) is a prairie garden and, behind that, shrubs such as red-osier dogwood. Behind them grows a row of white cedar trees. On the right are shrubs including serviceberry and dogwood (which provide both insect food and fruit for birds); behind them, white pine and hemlock trees offer cover for birds. Prairie-garden grasses and flowers are sources of seeds for birds in the fall. You can buy decals at nature centers, bird stores like Wild Birds Unlimited, and online at www.wpines.com (eight decals cost \$6.99 and come in a variety of patterns). Decals are most visible on the outside of a window, but can also be placed on the inside. They are easy to place and remove. Other window treatments to prevent bird-window collisions are pictured in the Zoological Society’s bird guide.*



WOODLAND GARDEN: “My woodland wildflower garden contains native plants that would be found growing under the trees on the forest floor, such as trillium, wild ginger and ferns,” says Vicki Piaskowski. Here she and her husband, Larry Hopwood, show the large leaves and berries of a great Solomon’s seal plant.

RESOURCES

**The Birds Without Borders-Aves Sin Fronteras® Recommendations for Landowners: How to Manage Your Land to Help Birds (Wisconsin, Midwest and eastern United States edition)” by Victoria D. Piaskowski, Kari M. Williams, Gil K. Boese, Ph.D., and Paula Brookmire. Published in 2008 by the Foundation for Wildlife Conservation, Inc., and the Zoological Society of Milwaukee. Available online at www.zoosociety.org/wilandowner. Free printed copies of the manual are distributed at educational outreach talks; go to www.zoosociety.org/Events to see a schedule. Piaskowski is the international coordinator of the Birds Without Borders-Aves Sin Fronteras® project, a research, conservation and education project to help save birds.

Wild Ones® Natural Landscapers, Ltd., a non-profit organization that supports native plants and gives instructional seminars. Web site: www.for-wild.org.

“Birdscaping in the Midwest: A Guide to Gardening With Native Plants to Attract Birds” by Mariette Nowak (2007, Itchy Cat Press).

Zoological Society Web site: www.zoosociety.org/bird-friendly-yard. This includes a diagram of Piaskowski’s yard and more information, such as alternatives to pesticides and herbicides (which Piaskowski avoids).

Progress for Bonobos

What started nearly 14 years ago as an action plan to save bonobos has grown into a major conservation program that has seen a lot of action. Who knew in 1995 that a small Midwestern non-profit – the Zoological Society of Milwaukee – would venture deep into Africa to build a research station and support patrol posts to protect bonobos, several schools, an agricultural cooperative and a new cadre of conservationists?

Who could have guessed it would succeed? Yet it has. Despite war, poverty, staff who couldn't read, and a location so remote that it could be reached only by a three-day canoe trip down unmarked rivers – the Zoological Society's conservation coordinator slowly crafted a true in-the-field conservation program. Dr. Gay E. Reinartz sat down with us in September to talk about the program's progress, ranging from a rebuilt research station to expanding the area of bonobo habitat being protected. But first, here's a quick primer:

Bonobo: *This endangered great ape is found in the wild only in the Democratic Republic of Congo (DRC). Highly intelligent, the bonobo shares 98.4% of its DNA with humans.*

Program: *The Zoological Society's Bonobo and Congo Biodiversity Initiative (BCBI), coordinated by Dr. Reinartz.*

Location: *DRC's Salonga national park, a minimally protected national park five times the size of Yellowstone National Park.*

Research station and patrol post: *Etate, which has six guards, two workers, a teacher and several thatch buildings.*

Milwaukee County Zoo connection: *The Zoo has a collection of 17 bonobos (as of fall 2008) that are part of the Bonobo Species Survival Plan (for captive bonobos), coordinated by Dr. Reinartz.*

Zoological Society of Milwaukee (ZSM) involvement: *Published the "Action Plan for Pan Paniscus" [the Latin name for bonobo] in 1995, a report on how to conserve bonobos in the wild. Supported Dr. Reinartz in bringing the action plan to life, setting up an office in Kinshasa (capital of DRC), funding bonobo surveys and anti-poaching patrols in the Salonga. Published, along with its partner, the Foundation for Wildlife Conservation, Inc., a 2007 book by Jo Sandin called "Bonobos: Encounters in Empathy," available at www.zoosociety.org.*



Deidre is a bonobo born at the Milwaukee County Zoo.

Progress in the Congo often means overcoming obstacles. Etate is next to a river. "We had to leave Etate early in December 2007 because of flooding," says Dr. Reinartz. "The weaker thatch buildings were lost." From adversity came an opportunity, however. In the old setup, the guard barracks was just one large building. The new chief of guards (see accompanying story about Bokitshi Bunda) "made a nice grass courtyard and arranged new guard houses around it. They're separate little thatch cabins, two guards to a house." Bunda's experience, organizational skills and literacy (he can read and write) have helped the research station to become more efficient.

In listing the progress the Zoological Society team has made in the last 18 months, Dr. Reinartz starts with the development of Etate. The guard personnel have been restructured, the staff has received more training, they have collected more data and they've increased anti-poaching patrols.

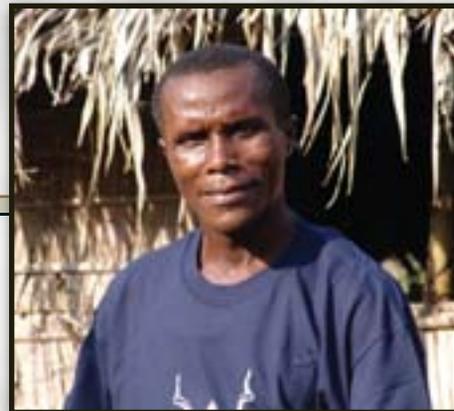
(Continued on page 20)

Bunda's Story

Photo by Dr. Gay E. Reinartz

Following is a report from the field about the Bonobo and Congo Biodiversity Initiative, the Zoological Society of Milwaukee's conservation program in the Salonga National Park, Democratic Republic of Congo.

Bokitshi Bunda



"Madame, don't forget us," were Bunda's parting words. Our pirogue pulled out into the current as I left him standing on the edge of the Luilaka River at a camp called Lokofa. It was April 2002. We had just completed a survey of the area, bushwhacking over 150 km of trails and transects, following Bunda and camping wherever evening found us.

We were in Lokofa to inventory the large mammals, mainly bonobos and elephants. The park warden had chosen Bokitshi Bunda, saying that Bunda was his best man, a guy who knew the park. This turned out to be an understatement. Bunda, sporting ragged clothes and flip-flops, with an automatic weapon and a small bundle of belongings slung over his shoulder, led us for two months into a vast forest – ridge after ridge of one of the loveliest and richest forests of the Salonga, where he showed me bonobos, elephants, forest buffalos, red forest pigs, giant pangolins, antelopes, Congo peafowl, and various species of monkeys.

Bunda, then 46, had worked as a park guard since he was a young man. As for most of the guards, the Salonga is his ancestral home. Before Salonga was designated a park, his family had lived there and hunted for their subsistence. During his years as a guard, he developed a reputation as a leader, fearless yet fair, leading patrols against poachers. It was his kindness and open smile that struck me.

On our trek, Bunda delighted in showing me the forest – feathers of birds, footprints of baby elephants, how to drink the water from the singa mai (or water vine), which fruits to eat, and how to use the giant leaves of *Megaphrynium* as an umbrella during torrential rains. Sharing hunger, thirst, fatigue, the drudgery of distances and the joy of discovery, exploring places that even Bunda had never seen, our party of five stuck together with the glue of camaraderie. When one of the other guards, Nkanga, pondered – Why does this white woman walk for months in the forest to find bonobos? Is she not really looking for diamonds? – Bunda put his hand on Nkanga's shoulder, gently pressed him to sit on a fallen log and explained: "If she were looking for diamonds, she would not fall as often. She would be looking down at the ground, not up in the trees to stumble over logs."

Our coming was a monumental event in Bunda's life. That scientists would appear in his remote world to

explore his forest, that he would be hired as a guide, be paid in U.S. dollars, that these people might find bonobos

and come back was more than he or anyone had learned to expect in this desolate land, especially as the civil war edged closer to the park. We offered the first hope that change might come. "Madame, don't forget us."

Five years passed, the war ended, we established a research station far from Lokofa, and Bunda intermittently hired on with other organizations to guide them. From time to time, I sent greetings to Bunda by way of other guards passing through. Once I sent him a pair of shoes, but I never saw him again. Then one day I heard a rumor that Bunda was in jail in Boende, a town about 100 km from our research camp. Bunda in jail?

Frantic, I intercepted radio messages. Yes, he's been there for two months. He shot a poacher in Monkoto, the poacher died, but the poacher's family claimed that Bunda had murdered him, and they demanded remuneration from the police in Boende. So, the police threw Bunda in jail to "await trial."

There is no place worse than a jail in Congo; if left too long, he would die. I went to the authorities in Kinshasa. I beseeched them to take some action; I swore that I would go to Boende myself to negotiate his release. I appealed to them to assign Bunda to Etate, our research camp, so that after his release, he could recuperate there from his ordeal and train for scientific work. Whether my protest helped or sunspots appeared on Venus, I'll never know the cause, yet Bunda was soon discharged from jail. We heard the news on the camp's shortwave radio that he was free.

Bunda walked four days to Etate. He arrived shrunken to skin and bones but with his smile and sense of humor undiminished. Now and then, struck by a feeling that a thing was meant to be, I think that Bunda's arrival at Etate was one of those affirming moments. Today he proudly presides as the Chief of the Etate Patrol Post and Scientific Research Station. Once again Bunda is our trusted guide.

By Dr. Gay E. Reinartz

This story is dedicated to an anonymous donor who made Bunda's hiring possible.

Children gather in front of a school that the Zoological Society of Milwaukee supports with supplies and teacher's salary. The school is in the village of Tompoko in the Democratic Republic of Congo.



These three new guard buildings at Etate were built after flooding in December 2007 ruined the guard barracks.



("Progress for Bonobos" continued)

Point by point:

- "Poaching is zero around Etate as opposed to neighboring areas, where we find snares and poaching camps."

- "We've increased the surveillance area and the number of days the guards patrol. In fact, they're at the maximum capacity of patrol days: 14 days a month. That's a lot given the difficulty of getting places in the forest. They look for signs of large mammals such as bonobos and elephants, and for illegal activity."



The Zoological Society's survey team at its Etate Research Station and Patrol Post get training in using a Global Positioning System unit. Bokitshi Bunda holds the unit.

In one report, Dr. Reinartz notes:

"We surveyed, inventoried and mapped the area between the Salonga and Yenge Rivers all the way to the Ika Patrol Post (four hours upriver from Etate) as well as previously unsurveyed places within Etate and [the village of] Bofoku Mai area, predominantly close to the Yenge River."

- GPS mapping: Some of the guards have been trained to use global positioning system (GPS) units. "We downloaded all data from all patrol GPS units, generating eight months of patrol data, to study and verify guard activity and monitor wildlife and human distribution."

- Literacy training for the guards: "We delivered notebooks, pens, chalk, higher level textbooks, and we paid the teacher's salary. At present there are seven people taking literacy classes. They're at different levels. Some have progressed from being able to read and write Lingala [a local language] to reading and writing elementary French [the country's main language]. Others are still trying to form their letters. We noticed that several local fishermen have also started attending. Based on the success of the program at Etate, we hired a teacher to start up an adult literacy program at Bofoku Mai to begin in November 2008."

- "BCBI began an agriculture cooperative two years ago. At that time, we delivered seeds and farming implements and hired a



Ecoguards Bokitshi Bunda and Wema Engula examine an elephant carcass found last April.

farming consultant to train people in good farming practices.

The first harvest (October 2007) was fairly successful. The first year, the villagers grew mainly manioc, a starch that is not very nutritious. This past year, some villages expanded to grow upland rice, a nutritious food source and cash crop. Some of the rice was sold at

the village level or eaten by the farmers themselves." The food serves as an alternative to hunting animals for meat.

- Primary schools: BCBI has continued to provide support to four primary neighborhood schools near Salonga National Park, including school supplies, footballs and teacher salaries.

Back in Milwaukee, Dr. Reinartz's Notes From the Field, first-hand reports while she's in Congo, have been published by the Shepherd Express newspaper and on its Web site during some of her trips to Etate.

On her spring trip this year, Dr. Reinartz will expand her work to an area more than 300 km northeast of Etate. She has been asked by the African Wildlife Foundation to survey bonobo nest density in the Cadjobe Corridor bordering the Lomako Faunal Reserve. "It's one of the places where bonobos were first studied, back in the 1980s and '90s," she says. The goal, again, is to help protect bonobo habitat by identifying areas that have the most bonobos.

As for the future of Etate, which was developed as a model for other conservation organizations to follow in the Congo, Dr. Reinartz says: "We hope to get more permanent, wooden, elevated buildings. And we would like to develop better ways to get to and from Etate (such as an airstrip) so we can increase visitation by other scientists." She also plans to bring nearby schoolchildren to the forest around Etate to see bonobo nests. Until she visited their schools, many of them had never even seen a photo of a bonobo, much less the animal itself.

By Paula Brookmire



RABIES MYSTERY

after a bite, but people who are untreated – like many in rural Brazil – nearly always die. (An exception is Jeanna Giese, a Wisconsin girl who is the world's first known unvaccinated rabies survivor.) Frayer got in touch with Dr. Phyllis Romijn, a Brazilian researcher charged with studying the problem. Last February, with the help of a grant from the Zoological Society of Milwaukee, he set off on a three-week trip to help Dr. Romijn and her team.

This case is a public health problem, Frayer says. In Brazil, common marmoset monkeys are as common as squirrels or

raccoons in Wisconsin. They live in woods surrounding residential villages and feed on fruit in backyard gardens. Villagers catch the cute monkeys to sell or keep as pets. Dr. Romijn's team aimed to test the monkey population for rabies and track the primates' movements. "We carry out

Photo by Mike Frayer



A common marmoset monkey perches in a fruit tree in Brazil.

research to find out what type of living beings get in contact with the marmosets that may be disease transmitters," Dr. Romijn says.

The team bought equipment to test the primates' blood and saliva. Frayer helped the team set out food traps in trees to capture the monkeys and learned to use radio collars and electronic data loggers that would let scientists follow the animals in the wild. Since February 2008, researchers have captured, tested and radio-collared monkeys in three study sites. Data collection is slated to run through August 2009. "We're trying to figure out how the rabies cycle started and how it's maintained in marmosets," says Frayer. One theory is that marmosets were infected at some point by an animal such as a bat or a fox. Yet animals that aren't rabies transmitters usually die when infected, without spreading the disease – not true in this case. Maybe the virus mutated and adapted to the monkeys, starting a new disease chain. Or maybe the monkeys have always had rabies, but scientists didn't discover it until the primates started biting humans. "When the lab results are in, we'll have more ideas about the dynamics," says Frayer.

In the meantime, researchers are working to educate the residents of Ceara about the dangers of keeping monkeys as pets. As the city develops into a tourist area and expands into monkey habitat, the marmosets travel from their native forests to urban areas such as parks and gardens, where they're often fed by humans. Some marmosets have moved outside their home range and now share a habitat with the highly endangered golden lion tamarins, putting this rare species at risk for rabies. "It's a potential conservation concern," Frayer says.

Frayer hopes to go back to Brazil to help researchers this spring. He is even learning Portuguese, Brazil's official language, so he can communicate easier with local scientists. "It's been very exciting to work with Dr. Romijn and this project," he says. There is still work to be done because "all the pieces of the puzzle aren't there yet." The team could crack the puzzle – and save lives.

By Julia Kolker

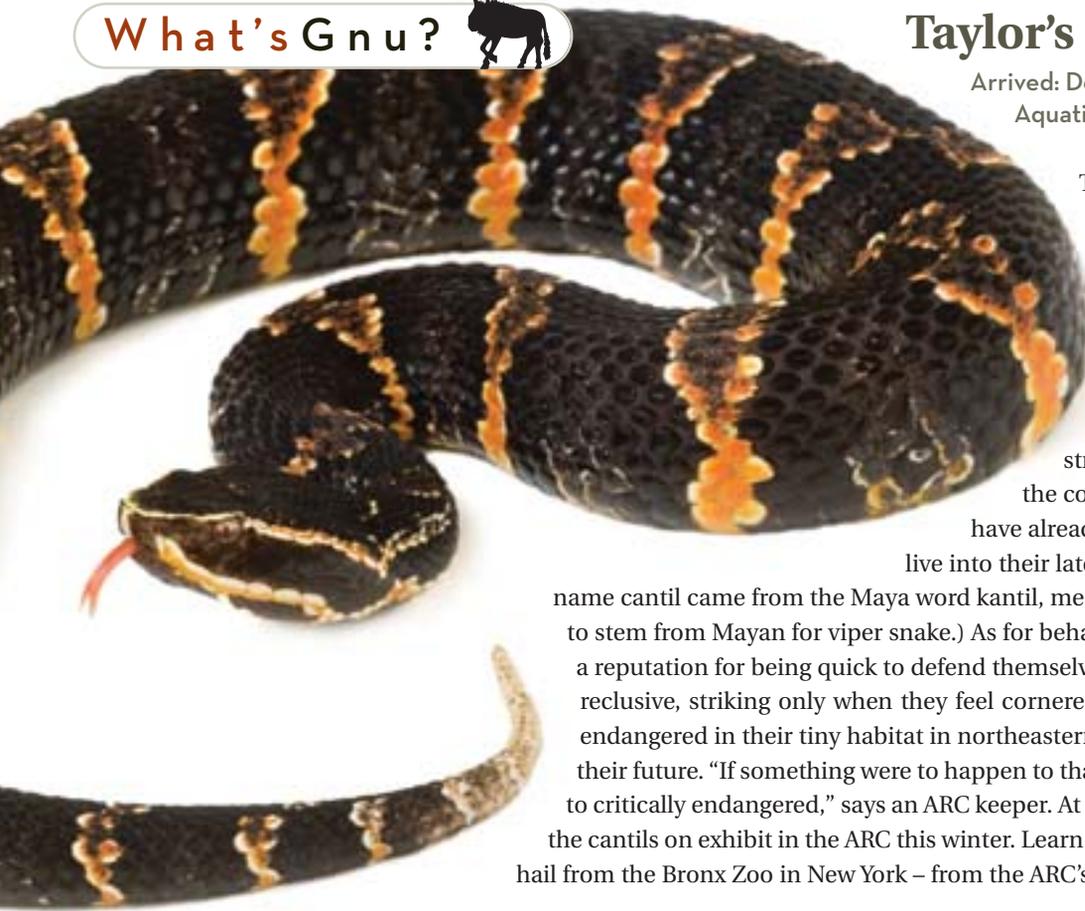


Mike Frayer shows educational posters (in Portuguese) designed to teach Brazilians about rabies.

Photo by Richard Brodzeller

The day Mike Frayer left for Brazil to study rabies in marmoset monkeys, a Brazilian teenage girl died of the disease. The girl, who had lived near the northeastern Brazilian city of Fortaleza, was bitten by a rabid marmoset her family kept as a pet. The tragedy had become disturbingly frequent in the region. Since the early 1990s, 15 people have died of rabies caused by marmoset bites in the Brazilian state of Ceara (where Fortaleza is located). The pattern was a mystery. For starters, rabies is thought to cycle naturally only in bats and carnivores such as dogs, skunks and raccoons. In fact, this deadly disease hasn't been noted in a group of monkeys anywhere in the world besides this small region of Brazil. Plus, the strain of rabies found in the marmosets didn't match any strains known to scientists.

Frayer, a zookeeper in the Milwaukee County Zoo's aviary, was intrigued. For several years, he has organized a rabies awareness day at the Zoo. Rabies kills more than 50,000 people worldwide every year, according to the U.S. Centers for Disease Control. The rabies virus is transmitted to people and animals through bites. Vaccines can prevent the disease if administered early enough



Taylor's Cantil Snakes

Arrived: December 20, 2007
Aquatic & Reptile Center

Taylor's cantil snakes are striking in appearance and behavior, says a keeper in the Milwaukee County Zoo's Aquatic & Reptile Center (ARC). Let's talk appearance. Cantils are born with colorful, distinct patterns and green or yellow tails for luring prey. The Zoo's two 3-year-old cantils sport bright orange stripes against rich brown skin, although the colors will darken or fade with age (their tails have already faded, but these snakes can probably live into their late teens). Researchers once thought the name cantil came from the Maya word *kantil*, meaning yellow lips. (Today, cantil is thought to stem from Mayan for viper snake.) As for behavior, these highly venomous snakes have a reputation for being quick to defend themselves and bite. Yet cantils are often shy and reclusive, striking only when they feel cornered. Although Taylor's cantils are not yet endangered in their tiny habitat in northeastern Mexico, conservationists worry about their future. "If something were to happen to that area, these snakes would go from stable to critically endangered," says an ARC keeper. At press time, Zoo staff were planning to put the cantils on exhibit in the ARC this winter. Learn more about these snakes – brothers that hail from the Bronx Zoo in New York – from the ARC's new, colorful signage.

Baby Caribou

Born: June 8, 2008
Caribou/Reindeer Exhibit

His name, Edan, is Celtic for "zealous and feisty." That name for the Milwaukee County Zoo's new baby caribou was a good choice given that he has battled illness since he was born. Edan's mother, *Kyllikki*, (Celtic word for "woman of strength") did not have strong maternal instincts and did not nurse him. So Edan did not get crucial antibodies from his mother's milk to fight disease. "This caused his immunity to be low, and he developed an infection in his leg," says Dawn Fleuchaus, area supervisor of the North America and Australia areas. Edan lived in the Animal Health Center for months as zookeepers bottle-fed him vitamins and gave him antibiotics to nurse him back to health. Once he got his vigor back, Edan rejoined the other four caribou last fall in their yard next to the grizzly bear exhibit. It took some time for him to get used to not having a lot of human attention. However, he has been gaining independence and taking care of himself. "He is very confident, and intermingles with the larger animals," reports Fleuchaus. In the caribou yard, it can be difficult to tell the difference between a caribou and a reindeer. Edan is a hybrid; his mother is a reindeer and his father, Larry, is a hybrid reindeer-caribou. How can you tell reindeer from caribou? The physical differences are subtle, but reindeer are heavier than caribou and have shorter legs. Traditionally, this species is called caribou in North America and reindeer in Europe, but reindeer can be found in North America on reindeer farms. Edan is still young and half the size of the others, with a small rack of antlers. You can see him out in his yard all winter since caribou are adapted to cold and snow.



Guam Kingfishers

Hatched: May 6 & 8, and July 7, 2007
Herb & Nada Mahler Family Aviary

What's Gnu?



Guam kingfishers are among the most endangered birds in the world. Only 103 exist – all in zoos. So it's worth making a visit to the Zoo to see these rare, colorful birds. The Milwaukee County Zoo has been successful at breeding them. In 2007, three Guam kingfishers hatched here: the brother and sister Dylan and Hope, and Sihek, a male. The Zoo also welcomed one chick in 2006 and one back in 1995. Kingfishers were once common on the Pacific island of Guam. During World War II, brown tree snakes were accidentally brought to Guam in the wheel wells of military aircrafts. The snakes destroyed the kingfisher population (as well as Guam rails, another native Guam bird also on display at our Zoo). In the mid-1980s, Guam's remaining 29 kingfishers were caught and placed in zoo breeding programs, their only hope for survival. "We've learned a lot about these birds since we started breeding them," says Carol Kagy, area supervisor of the Zoo's Herb & Nada Mahler Family Aviary. For example, zookeepers noticed that increasing the humidity in the birds' enclosure seemed to help the kingfishers produce and lay eggs. Rotating the artificially incubated eggs more often also seemed to make for more viable eggs and hatchlings. The Zoo staff's dedication, too, was vital to helping these small birds survive. Aviary keepers came in early and stayed late to hand-feed and hand-rear the kingfisher chicks. Because Guam kingfishers are so endangered, most zoos hand-rear the chicks until the parents establish a strong bond (pairs are then encouraged to rear their own chicks whenever possible). The Zoo now has two breeding pairs of kingfishers, including the oldest bird in the world, a 21-year-old male. All chicks besides '07 arrivals have joined

breeding programs at other zoos; Dylan, Hope and Sihek could be sent off in 2009 as well. In the meantime, you can see Dylan in the aviary. (The remaining birds are off exhibit for breeding. They need their own territory with little disturbance from the other birds and the public.)

Oakley, the Milwaukee County Zoo's new female dwarf mongoose, came here to be a companion to Mike, the resident male. After a patchy start, the newbie warmed up to her new home quickly, says Rhonda Crenshaw, area supervisor of the Small Mammals Building. When Oakley first arrived in August 2008, she would run and hide from zookeepers. She spent nights curled up in a child's knit hat, which came with her from her previous home, Chicago's Brookfield Zoo. Her shy streak didn't last long. Oakley soon began requesting her meals personally. "She chirps at keepers when she sees them preparing food," says Crenshaw. Dwarf mongooses are social animals by nature. Mike lived with his brother until the latter died. Crenshaw says it's stressful for this type of animal to live alone. In their native Africa, mongooses live in groups of two to 20. They're found throughout the eastern, south-central, and southern parts of the continent. Each member plays a key role in the safety of the group. Because of their small size (ranging from 7 to 11 inches), mongooses' main defense mechanism is to run and hide from predators such as snakes or large birds. When danger nears, they use a warning call to notify the colony and then sneak into their dens. Mongooses feed in the wild on small lizards and insects such as venomous scorpions (the mongoose is immune to the venom). At the Zoo, mongooses eat fruit, veggies and insects such as worms and crickets. Zookeepers introduced 10-year-old Mike to 3-year-old Oakley in November. See them on the day side of the Small Mammals Building.

Dwarf Mongoose

Arrived: August 5, 2008
Small Mammals Building



Help the Penguins Climb to New Heights!

The Zoo's Humboldt penguin habitat is getting a revamp!

Give to the Zoological Society's 2009 Annual Appeal, and you'll get a whole new perspective on these birds.

See penguins waddle up new walkways on their rocky hill, just as they would do in the wild. Watch penguins swim in a clear-glass pool (with no metal dividers obstructing your view)! Behind the scenes, we're improving the nesting area and installing two Web cams. Imagine seeing the penguins preen, eat or care for their young 24-7.

No more metal dividers!



Two Web cams!



The new Taylor Family Foundation Humboldt Penguin Exhibit opens later this year.

Waddle you do to help? See the insert packaged with this *Alive* to contribute to our Annual Appeal. Or, check our Web site at www.zoosociety.org or call us at (414) 258-2333.

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