



Alive

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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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Dedication. Devotion. Down-to-earth love of animals. Day-in-day-out commitment. These words come to mind when I think of the people who volunteer so much time to the Zoological Society of Milwaukee (ZSM) and the Milwaukee County Zoo. Just think of it: 35,446 hours were donated to the ZSM and the Zoo last year by our 548 active Zoo Pride volunteers.



And that doesn't count hundreds more volunteer hours put in by the members of our Boards, outside consultants such as physicians and dentists who help care for the animals, the children who decorate holiday trees at the Zoo for the Zoological Society, the people who donate auction items to our fund-raisers and hand-deliver them to the Zoo, the bakers who made animal cakes for our 100th anniversary kickoff celebration in January, and so many more. What can we say when faced with such generosity? We say thanks.

In this issue of Alive, we're saying thanks by honoring the 35th anniversary of Zoo Pride with a story about its people and its successes (page 8). To show you just how loyal our volunteers are, four of the people who helped found Zoo Pride are still active volunteers 35 years later! You'll hear from each of them in this story. You'll learn why so many people love to volunteer at the Zoo, whether they're 19 or 90. Look at the faces of these passionate supporters. Then log onto the ZSM Web site and read their individual stories (zoosociety.org/whywevolunteer).

There are so many reasons to volunteer. Lynn Wilding, our volunteer manager (who's pictured with me above), notes several things that make the Zoological Society an unusual place to volunteer. "We are a seven-day-a-week program 365 days a year offering daytime and nighttime opportunities," she says. "The Zoo is one of the best in the country. You can volunteer and, after your shift, stay and enjoy the Zoo." Plus, you get behind-the-scenes information about the Zoo and extra training and learning opportunities. There are no minimum hours required. We thank volunteers and recognize their efforts throughout the year with displays of our appreciation such as tiger pins, an annual picnic and an awards banquet, to name a few. Our volunteers - like the ZSM itself - have staying power. As they celebrate 35 years this year, the ZSM is celebrating 100!

Speaking of volunteering, we must mention the volunteer hours that many Zoo staff provide while conducting in situ and ex situ research that benefits animals both in the wild and at the Zoo. Dr. Roberta Wallace, the Zoo's senior veterinarian, has coordinated a remarkable 16 years of study on Humboldt penguins in Chile (page 4). She and other Zoo staff have traveled to Chile many times to study penguins under often difficult conditions. While the Zoo pays part of the staff time, and the Zoological Society provides funds for this research, Zoo staff end up volunteering a lot of their own time doing the research, collecting data and then processing reports. Zookeeper Erin Dowgillo's African research on elephants and rhinos in 2009 (page 14) is a great example.

In the end we all know that the hours we put in to help people appreciate animals - and to help the animals directly - make this a better world for all its denizens.

Robert Davis

Dr. Bert Davis
 Chief Executive Officer

Alive

100TH ANNIVERSARY YEAR
OF THE ZOOLOGICAL SOCIETY



4 *Window on Penguin Life*

Peek into penguin life on the coast of Chile as Milwaukee County Zoo staff study ways to help these birds survive.

Web: Photos of penguins and scientists in Chile plus references to more research: zoosociety.org/chilepenguins

7 *Where Dinosaurs Roam*

Experience your own dinosaur adventure at the Zoo's special summer exhibit, Adventure Dinosaur!, sponsored by Lowe's. **Web:** Who makes those dinosaurs and how do they get to the Zoo? zoosociety.org/dinomaker

8 *The Faces of Zoo Pride*

Discover why Zoo Pride is one of the best places in town to volunteer. The ZSM's volunteer auxiliary celebrates its 35th anniversary in 2010. **Web:** Individual stories on volunteers: zoosociety.org/whywevolunteer.

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Going to Zoological Society classes and summer camps with a grandchild gives you a new view of the Zoo.

14 *Conservation Chronicles: Promise of Poop*

For some, it's gross; for others, it's science. A zoo-keeper studies elephant and rhino poop in Africa.

Web: African research: zoosociety.org/poopstudy

15 *What's Gnu*

Three new impalas and two Laysan teals.

Web: More new animals: zoosociety.org/gnu

Kids Alive 12-13 Explore the lost world of dinosaurs and play paleontologist. **Web:** www.zoosociety.org/kidsstuff

ANNUAL REPORT

Our annual report got a new address! It's available online only at zoosociety.org/annualreport.

Contributors The insert packaged with this *Alive* includes a list of Serengeti Circle members and of Platypus Society donors.

ON THE COVER: Happy the hippo (see below).

'Happy' 100th Birthday to Us

Celebrate the Zoological Society's big birthday with a big animal sponsorship. Happy, the Milwaukee County Zoo's new 5,500-pound hippo, is our centennial mascot in 2010 (and our spring *Alive* cover star)! Why Happy? A hippo called Yacob (Jacob), who came from Germany in 1913, was one of the first animals the Zoological Society acquired for the Zoo. Happy, too, came from afar: he traveled to Milwaukee last fall from the National Zoo in Washington, D.C., where he was born in 1981. He now lives in a new enclosure called the Dohmen Family Foundation Hippo Home with female companions Patti and Puddles. Call (414) 258-2333 or go to www.zoosociety.org to sponsor Happy.

Sponsor Happy for \$100 anytime this year and receive:

- A big, plush-toy hippo
- A fun fact sheet on Happy and hippos
- An invitation to Animal Safari, a behind-the-scenes event at the Zoo
- A photo of Happy
- A certificate of sponsorship
- Two Zoo attraction coupons
- Special recognition on a Zoo sign

CENTENNIAL STORIES



We kicked off our centennial in January with a party and a cake-decorating contest. The festivities continue online. Go to www.zoosociety.org/100years for photo galleries and stories about the Zoological Society's history. (Also look for centennial features all year in our *Wild Things* newsletter.) Here are some highlights:

- A wildly sweet time at our cake contest: zoosociety.org/cake
- A conversation with Bess Frank, the Zoo's unofficial historian: zoosociety.org/Podcasts
- A photo history of the ZSM: zoosociety.org/photohistory

Window on Penguin Life



CLOCKWISE FROM TOP LEFT: 1) Humboldt penguins on Algarroboles Island were counted during the 2008 Humboldt penguin census in Chile. 2) In November 2009 a penguin pair nested in a new artificial burrow on Algarrobo Island. 3) Dr. Roberta Wallace measures the beak of a Humboldt penguin at the Zoo. 4) While penguins often dig burrows for their nests, they'll use what's available, such as cactus in the desert Chanaral Island 5) Researcher Mariano Bernal uses a spotting scope to count penguins in 2008 in Chile. 6) Bernal (left) is rowed to a penguin island by a Chilean fisherman. 7) A rocky crevice serves as a penguin burrow on Algarrobo Island. 8) Dr. Roberta Wallace (left) and Margaret Michaels prepare to measure a penguin's beak at Algarrobo, the main research site, in 2004. Photos provided by Mariano Bernal, except No. 3, by Richard Brodzeller.

A penguin jets straight up out of the water, making a seemingly impossible upright landing onto slippery rocks. If you spend time at the Milwaukee County Zoo's Taylor Family Foundation Humboldt Penguin Exhibit, you might see this amazing skill. Now picture hundreds of these flightless birds making the same leaps onto steeper, guano-streaked rocks in Chile. Then watch them hop even higher, from crag to crag, up a small mountain. What's the attraction? Yeah, you guessed it: the opposite sex.

Humboldt penguins look for mates on and dig burrows into some of the most exposed, rocky islands off the coast of Chile. Periodically El Nino washes away all their nests and eggs. Yet the birds keep coming back. And not far behind have been researchers from the Milwaukee County Zoo. Since 1994 they have worked with Chilean scientists on a variety of penguin studies, thanks in large part to funding from the Zoological Society of Milwaukee. For 10

years, through fall 2004, Zoo staff were going down to Chile once or twice a year for the spring and fall breeding seasons to do an ecology study on penguin breeding, nests, diseases and the survival rate of chicks.

It wasn't an easy task. If the rocks look slippery for penguins, imagine what it's like when you don't have penguin feet. Then there's the constant dampness. Spring is the rainy season, but spring 1997 saw torrential El Nino rains with storms every 36 hours. "The only way we could dry our clothes was over a fire," says Dr. Roberta Wallace, the Zoo's senior veterinarian, who has coordinated the Zoo's part of this project since the start. That spring was also hard on the penguins. Of the 200 nests that researchers originally counted, by the end of their four-week stay only one nest remained, with one adult bird and two chicks.

Despite threats from nature and from humans (including competing for fish and getting caught in fishing nets), Humboldt penguins “seem to be holding their own somehow,” says Dr. Wallace. The birds are listed as highly endangered by one international group (CITES) and as “vulnerable” by the International Union for the Conservation of Nature (IUCN). These penguins are found only on the coasts of Chile and Peru and in the Pacific Ocean. In the latest census (2008), there were 35,271 Humboldt penguins counted in Chile. (Peru counted 8,000 in their 2004 census, says Dr. Wallace). The Zoological Society of Milwaukee has helped fund the Chilean census of Humboldt penguins every year but one from 2001 through 2008. No census was done in 2009 partly because higher gas costs drove up research costs to \$15,000 and also because the number of penguins counted has been stable enough that scientists felt one year could be missed. The penguin census is resuming in 2010, thanks to ZSM funding of \$11,000.

Remarkable Support

The 16-year support of penguin research by the Zoological Society is remarkable, notes Dr. Wallace. Since the 1998-'99 fiscal year, the ZSM has given \$166,323 to this research. The total amount given since 1994 (figures not available for 1994-1997) may be closer to \$185,000 since the ZSM provided equipment to get the study started. The money has gone to Zoo-staff research on Humboldt penguins in Chile and at our Zoo, as well as to full funding of eight years of penguin censuses conducted by Chilean researchers. “This is a very long-term study on a long-lived seabird. They can live 20 to 25 years in the wild and 30 or more in captivity. To adequately study animals that have long lives, you need a reliable, steady source of money. You cannot get an accurate idea of their natural ecology with grants that last only two or three years,” says Dr. Wallace. “It takes a long-term commitment just to get the basic data. Without the Society’s continuous support of various aspects of this study, there is no way this research could have spanned 16 years.”

Ultimately, the goal of the research is to find ways to help these penguins survive.

“Through the research, we know that chick survivability at the sites we’ve studied in Chile is low,” says Dr. Wallace. “So the population is fragile. The research also has given us a better understanding of what predators and the rains do, what other seabirds sharing breeding grounds do, and what parasites do. This understanding can lead to conservation measures, such as artificial burrows.”

Zoological Society funding last year went partly to the installation of 35 artificial burrows on an island off the coast of Algarrobo in central Chile (see photo 2). “Penguins aren’t very discriminating,” says Dr. Wallace. “They’ll nest almost anywhere. They prefer to have some sort of cover from the elements and from seagulls and other predators, but they have a wide range of nesting spots, from rock caves to dirt burrows under vegetation to crannies between rocks. They even nest under cactus in the coastal desert (see photo 4).” Because penguin nests, especially dirt burrows, are fairly impermanent, they are easily washed away by rain and waves. Solution: Researchers gave penguins nest burrows made of more permanent materials, namely plastic barrels cut to penguin size. In the fall 2009 nesting season, the penguins used four of these nests. It will take awhile for them to get used to the new burrows, says Dr. Wallace. The 2010 nesting seasons will be a better judge.

How the Research Started

In the early 1990s, zoos in general were looking at why the captive population of Humboldt penguins was not reproducing well. Some people speculated that the birds might be deficient in vitamins E or A. Blood samples were taken on our Zoo’s Humboldt penguins. But there were no blood samples from wild penguins for comparison. So, in 1992, Dr. Wallace and other Zoo staffers went to Chile twice, in spring and in fall, to collect blood samples from wild penguins at two separate colonies for comparison.

On that 1992 trip to Chile, Dr. Wallace met Dr. Braulio Araya, a renowned Chilean ornithologist, and learned that not much was known about the survivability of wild Humboldt penguins because they weren’t

being studied. “That’s when we came up with the idea to do a natural ecology study.” A former island near Algarrobo was chosen because it now was attached to the mainland by a breakwall, or land bridge, and so was easily accessible to researchers. (Many penguin islands are too dangerous to reach by boat.) Starting in 1994, Zoo staff began making twice-a-year trips to Chile in spring and fall to conduct the study. In between those trips, Chilean researchers (Dr. Alejandro Simeone and Mariano Bernal) monitored the penguin colony about every three weeks, thanks to ZSM funding. The Milwaukee County Zoo paid the salaries and expenses of Zoo staff* who traveled to Chile, and the Windway Foundation, thanks to Terry and Mary Kohler of Sheboygan, paid their airfare.

One thing learned was that animals introduced by humans – such as rats and domestic dogs and cats – are just as much of a threat to penguins as gulls. The land bridge at Algarrobo is gated near the island, but this bridge allows domestic animals as well as humans easier access to the island study site. About 12 years ago, Dr. Simeone was surveying birds from the mainland and noticed people carrying dead penguins that were killed by feral dogs. The gate to the island had broken. Dr. Simeone let authorities know, and the gate was repaired and improved, although cats can still get over and under the gate.

For the natural ecology study, staff identified more than 1,600 individual penguins by band or transponder chip; took basic measurements such as weight and beak length and width; and took blood samples. To determine if some types of nests were more successful than others, they documented nest type (cave, cranny, burrow) and recorded eggs laid and chicks hatched (including counting chicks that lived and died). They discovered:

Males have big beaks: It’s hard to tell male from female Humboldt penguins just by looking at feather color or weight. So researchers took blood samples to determine sex using DNA analysis; then they measured physical characteristics of the same penguins. They found that males generally had longer and thicker beaks. Beak measurement allows you to correctly identify the sex of an adult penguin about

*Besides Dr. Wallace, Zoo staff who have been to Chile for the census or other research include Dr. Bruce Beehler (Deputy Zoo Director), veterinary technicians Margaret Michaels and Joan Mauer, and zookeeper Mickey O’Connor. Former staff involved include Heather Couch, Ed Diebold, Karen Grzybowski, Craig Pelke, Ellen Saksefski, Kim Smith, J. Andrew Teare and Mary Jo Willis. Two zookeepers and a vet from other zoos also have participated.

90% of the time. However, that doesn't apply to captive penguins in zoos, where females have "excessive beak growth," according to Dr. Wallace.

Penguin nest loyalty: Male Humboldts usually choose a nest site and generally return to the same site, even if a mate has died and the male has found a new mate. Female penguins, however, if they lose their mate, typically will follow a new mate to whatever nest site he chooses.

Chick survivability: Overall survival at the study site appeared low, especially compared to penguin colonies in northern Chile and Peru. On average, 63% of nests were abandoned each breeding season without eggs hatching. Among chicks that did hatch, the mortality rate was high (at times, almost 100%). Chick survival varied from season to season, with better survival rates in spring. The poor survival rate was attributed to heavy rains and periodic El Nino storm seasons causing flooding and burrow collapse, predatory kelp gulls eating penguin eggs, pelicans trampling nests, and occasional human tourists visiting the island illegally and disturbing penguin burrows.

How far do penguins swim from nesting sites:

While one study of a small group of Humboldt penguins showed that the birds spent 90% of their time within 22 miles of their nesting colony, 19 penguins banded at Algarrobo were found up to 355 miles from the colony. (Of those birds, 18 were dead, found on beaches or in fishing nets.) Therefore, conservation efforts may need to be directed at their



foraging and traveling ranges as well as at their colonies.

More Questions, More Answers

Other studies were spurred by questions raised in the natural ecology research. Besides the penguin censuses and the artificial burrows study (started in 2009), the other studies asked:

Do Humboldts usually go back to their native island/area to breed? The short answer is: They are not as faithful as previously thought. This study took about five years, says Dr. Wallace, because chicks take five years to reach breeding age. "In 2004 Dr. Simeone and students went to other islands to see if our birds were there. (Birds had either bands or transponder chips.) They found females that had hatched at Algarrobo. They found almost as many birds



Dr. Alejandro Simeone examines and marks an egg before returning it to the nest. The penguin parents will not abandon the nest if this is done quickly.

nesting at other islands as at Algarrobo. So the birds seem to be dispersing." The answer to this question is important because you might take different conservation measures for a species that disperses, and thus is treated genetically

as one population, versus one that has strong genetic differences depending on its location.

Are Humboldt penguins at different colonies genetically the same? The short answer: Yes. "They pretty much can be counted as one population," says Dr. Wallace. The penguin populations from island to island are not genetically distinct, but genetic differences increase the farther the penguin colonies are apart."

Will wild Humboldt penguins mate with Magellanic penguins? Yes. In some parts of their range, the two species share the same breeding grounds and have produced hybrid chicks (confirmed by genetic analysis).

Are large numbers of penguins dying from diseases or parasites? No. External parasites such as lice, ticks and fleas are routinely found on penguins and don't cause problems, except occasionally in chicks and sick birds. So far, the study population at Algarrobo appears to be free from virulent viral or bacterial infections.

Dr. Wallace and other Zoo staff have put in about 1,600 transponders to track Humboldt penguins and they have 1,000 blood samples (which are stored at the Zoo for future research). They and associated researchers have published at least 13 articles or presentations on the studies. For a list of specific papers and more photos, go online to www.zoosociety.org/chilepenguins. They have answered many questions that could help shape conservation policies for penguins. Dr. Wallace hopes that Chile will protect more penguin habitats, as Peru recently did. Meanwhile, the research goes on.

By Paula Brookmire



Create your own prehistoric adventure at the Milwaukee County Zoo's new summer exhibit, Adventure Dinosaur!, sponsored by Lowe's. The outdoor exhibit, opening May 29, features 29 life-size dinosaurs that will make visitors gasp as these robotic creatures defend themselves from predators, watch their young and search for food. You might not believe they're extinct. Start by following the *Tyrannosaurus rex* footprints near the outdoor Humboldt penguins and follow them to the dinosaurs behind the Small Mammals Building. The footprints are spaced as if a *T. rex* were walking and then began to run at 27 mph.

Where the Dinosaurs Roam

Many crowd favorites will return to the Zoo, like the two-story-tall *Tyrannosaurus rex* with its nest of babies. Other popular dinos are the saliva-spitting *Dilophosaurus* (don't worry – it's only water), chicken-sized *Compsognathus*, and the alligator-jawed *Baryonyx*.

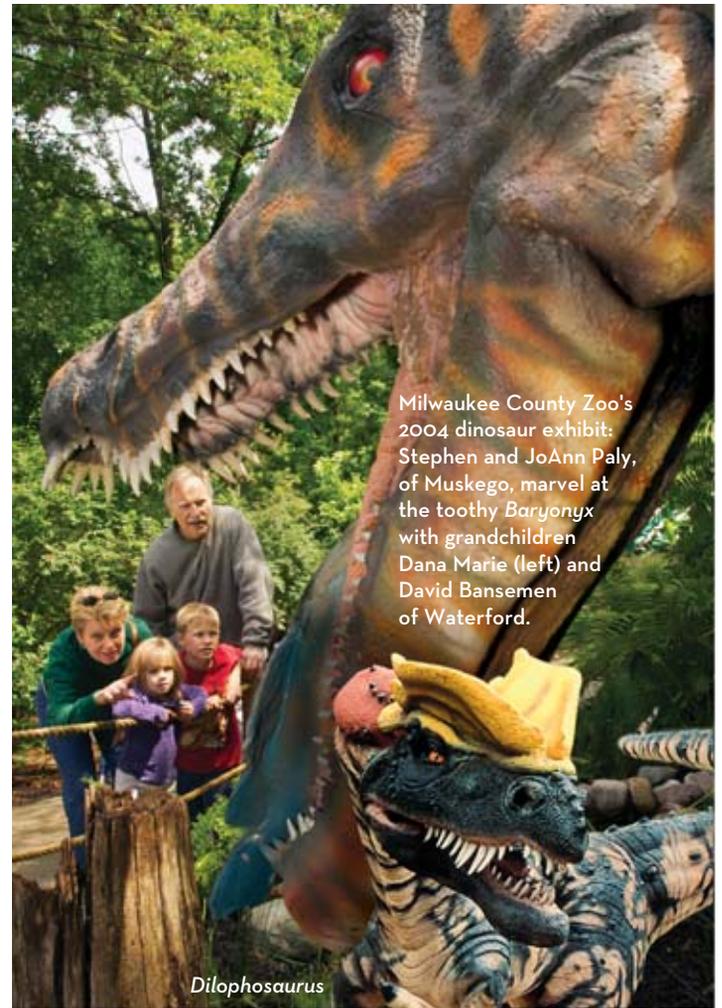
Eight of these dinosaur models have not been in the Zoo's previous six dinosaur exhibits (dating to 1994). For example, the *Edmontosaurus*, at 17 feet 8 inches long, will be the largest Canadian to enter the Zoo. Discovered in Alberta, Canada, this four-legged lizard could stand on its hind legs to gather food. This large lizard lived in coastal plains regions during the Cretaceous period (65-144 million years ago). Don't startle *Edmontosaurus* because it will be protecting its baby and eggs. Other new-to-the-Zoo herbivores are the long-armed *Therizinosaurus* (which may have used its scythe-like claws to tear open insect nests); *Styracosaurus* (which used the spiked crest on its head and a protruding horn against predators); the long-necked *Barapasaurus* (with its large legs compared to its body); and the plated and spiked *Kentrosaurus* (similar to the *Stegosaurus*).

Be cautious because you may find yourself prey to our newest carnivore, the 9-foot-tall *Megalosaurus*. This "Great Lizard," which is what its Latin name translates to, was one of the first dinosaurs to be discovered. With its razor-sharp teeth and fierce spikes, *Megalosaurus* probably sent shivers down the spines of its prey.

All of the dinosaurs have a robotic skeleton that allows them to move. If you want to learn how the dinosaurs work, you can play with an interactive model of a *Deinonychus*, a smaller predatory dinosaur similar to a *Velociraptor*. The model is built with its internal structure exposed. This lets you watch the mechanics inside work while you press arcade-style buttons on a control pad to make the dinosaur raise and lower its head.

The dinosaur models were created by Billings Productions in McKinney, Texas. Billings has been making robotic dinosaurs since

2003 to educate the public about prehistoric life. "From the educational aspect, there is a whole world of dinosaurs out there," says Trey Billings, vice president of operations. "There are over 300 different species of dinosaurs (that we know about!) spanning a time frame of 165 million years. If you consider modern humans have been living for an estimated 200,000 years, dinosaurs lived in a time span 825 times greater than our own."



Milwaukee County Zoo's 2004 dinosaur exhibit: Stephen and JoAnn Paly, of Muskego, marvel at the toothy *Baryonyx* with grandchildren Dana Marie (left) and David Bansemen of Waterford.

Dilophosaurus

When you're done watching all the dinosaurs, spend some time fossil hunting in the dinosaur dig box to uncover a *Deinonychus* skeleton (skeleton is not removable). Before leaving, take a photograph next to an adult *T. rex* head, which lies on the ground in front of a jungle backdrop. Your "adventure" isn't over yet. The Zoo is filled with animals that have similar adaptations to the dinosaurs. For example, birds have claws like the *Therizinosaurus*, some modern-day lizards look like dinos, giraffes have long necks similar to the *Omeisaurus*, and rhinoceroses have horns like the *Styracosaurus*. The rest of the Zoo is waiting.

ADventure DINosaur!

Sponsored by Lowe's
May 29 - Sept. 6

Exhibit cost: \$2.50*
(in addition to Zoo entrance fee)

See Kids Alive on page 12 for dino fun.

By Benjamin Wright



Faces of Zoo Pride

35TH ANNIVERSARY

The Milwaukee County Zoo is one of the best places in Wisconsin to volunteer. It's a beautiful park. It's a place to see animals not native to Wisconsin. It has its own train. It has an eight-classroom school, a modern animal hospital, endangered animals from around the world, and one of the largest non-profit support organizations in southeastern Wisconsin: the Zoological Society of Milwaukee (ZSM).

"And you really don't have to like animals to volunteer here, either," says Robin Higgins. She was the first paid volunteer coordinator of Zoo Pride, the Zoological Society's volunteer auxiliary, and has been a member of the group since 1982, along with her husband, Brian. "One of the first volunteers I met didn't like animals," notes Higgins, who is currently ZSM vice president of Communications, Marketing and Membership. "This woman preferred staffing the information booth and special events (such as Halloween or Easter-themed events). So if you enjoy working with other adults or with children, you can find your niche here."

Zoo Pride marks its 35th anniversary this year, while the Zoological Society celebrates its 100th anniversary. Zoo Director Chuck Wikenhauser is fond of saying to volunteers: "The Zoo couldn't do all we do without you." As of Jan. 31, 2010, Zoo Pride had 570 volunteers (518 active and 52 inactive). Of the 63 charter members of Zoo Pride, four have been active volunteers for 35 years: Rachel Jones, Bev Kumershek, Chris Leutner, and Don McLean. Here's why they like volunteering at the Zoo (total number of volunteer hours as of Jan. 31, 2010, are shown in parentheses):

"There's a great variety – 29 committees. You can pick what suits you. You can be as active or inactive as you want to be. Also, we don't have a minimum number of hours. So you can do what fits into your schedule. You can sit down. You can walk the Zoo. You can stand in front of exhibits and be a guide." *Rachel Jones* (3,494 hours).

Memories that last: During one Halloween event, a teacher who was a volunteer had dressed as a vampire covered in white paint and fake blood. She had to lie in a coffin on a hill near the African Waterhole Exhibit. When a Zoomobile drove past, she sat up and shrieked. During one scream, a little boy from one of her classes recognized her and said, "Hey, that's my teacher!" He was with his mom, and parent-teacher conferences were coming up

at the school the next week. The mom thought the teacher was odd, but they ended up having a good relationship. *Chris Leutner*, the teacher (8,556 hours)

A good chuckle: "On the primate committee, we have people who give gorilla talks, and we have a sign near the gorilla exhibit that announces when we have Gorilla Talks. The other day a boy, maybe 14, came up to me and asked: Where do the gorillas give their talk?" *Don McLean* (7,239 hours)

People from all walks of life: "Zoo Pride is wonderful because you can work with teachers, bankers, truck drivers, engineers, advertising people, draftsmen, biologists, dairy people – just a variety of professions. I think you could probably pick every walk of life and find a volunteer from it." *Bev Kumershek* (6,463 hours)



For the 30th anniversary of Zoo Pride, four remaining active charter members were photographed with animal mounts used in programs for the disabled. Clockwise from top left: Chris Leutner, Don McLean, Bev Kumershek and Rachel Jones.



“I’ve made some good friends. We do other things besides volunteer. Jessie Franz and I have traveled. JoAnne Bartlein was my roommate at a whole bunch of docent conferences. Last year Mary Finke and I went to Arizona together. In summer a carload of us goes up north to Amish country (near Kingston, Wis.) to get strawberries. We have gone to UW Madison band concerts and to the Racine Zoo. I can’t think of a better place to volunteer because it’s a nice mix of people.” *Rachel Jones.*

Lynn Wilding, the current volunteer coordinator, gives more reasons why Zoo Pride is a good place to volunteer: “Volunteers here are able to select from a number of opportunities that best match their skills and interests. We offer trainings and educational programs for the benefit of the volunteer. We offer recognition and appreciation events that allow volunteers to have fun with fellow volunteers and staff. Both ZSM and Zoo staff have a good working relationship with volunteers. We are a seven-day-a-week program 365 days a year, offering daytime and nighttime opportunities. The Zoo is one of the best in the country. You can volunteer and, after your shift, stay to enjoy the Zoo. You need to pay for a ZSM membership to volunteer, but you can earn a free Zoo Pass (membership) if you volunteer 125 hours or more each year (and discounted passes for volunteering 50 hours or more).”

Zoo Pride volunteers can start as early as age 15, and there’s no upper limit. “I’m 90, and I can’t stand up for long,” says Don McLean, one of the oldest volunteers (Emily Dudas, at 95, is the oldest). “Sept. 21 I had a knee replacement, and that grounded me for a couple months.” But then he was right back at the Zoo. And what about the fact that there are about four female volunteers for every male (403 females to 133 males) – does that bother McLean? “No way. I think it’s wonderful that the women participate as they do. They’re interesting to talk to, and I get a lot of information from them about the animals.”

Here’s more about the history of Zoo Pride. You’ll find photos and more details online at www.zoosociety.org/whywewolunteer:

In the beginning: Who knew that a Saturday-morning meeting in the Zoo’s Flamingo Café would launch one of the most popular volunteer groups in town? More than 60 people showed up that day in 1976 for a brainstorming session called by Rosemary Spiedel, wife of then-Zoo Director George Spidel, and the wives of several ZSM Board members; 63 became charter members.

One of the new group’s first projects was an open-air information booth in the Zoo’s main mall. “It had a little room

and a little shelf with a map of Milwaukee and the expressway. We were out there come rain and come shine, even when the wind was blasting off Lake Michigan,” says Bev Kumershek. The volunteers soon got uniforms for an official look: white shirt, blue sash, black pants and a pith helmet. Zoo Prider Jim Redding (5,910 hours) modeled this uniform at the Zoological Society’s centennial celebration party in January 2010 (see photo next page). Later, the uniforms were changed to khaki pants and a khaki top.

An Eventful Time: The Zoo didn’t have paid special events staff until the late 1980s; so volunteers jumped at the chance to organize parties. And parties they were. Teddy Bear Days, which ran for seven or eight years, started out as a five-day teddy bear-themed fest that featured everything from daily catered breakfasts to bear-costume contests to a bear hospital where “doctors” repaired old bears. The event concluded with a parade and contest prizes. “Adults would bring in bears by the truckload,” says long-time volunteer Chris Leutner. “My favorite contest was for the most-loved bears; you’d get kids with bears that were just two or three threads of material.” (More details online.)

Another popular event was a Halloween Dungeon of Darkness that Zoo Priders ran in Winter Quarters, an under-ground area where warm-weather animals spend the winter. Says Leutner: “We didn’t even need to do anything scary down there because it was already scary. You could hear animal noises and dripping water. We scared the bejabbers out of people.” In other parts of the Zoo, volunteers dressed like Halloween characters and lurked around Zoomobile paths, scaring riders when the cars rolled past. (Volunteers still dress up during the Zoo’s Halloween events, but today’s festivities are more family-friendly. Instead of a haunted dungeon, kids can make their way through a haystack maze on the Northwestern Mutual Family Farm.)

Many events that volunteers began continue to this day, from Breakfast and Lunch with Santa to Egg Day. Bev Kumershek and Robin Higgins organized the first Senior Celebration, which gives free Zoo admission to seniors ages 55 and older. For years the event was sponsored by Aurora Healthcare, which set up a mini-clinic where guests could get blood pressure screenings and health tips. The day also included bingo, music, doughnuts, popcorn, boxed lunches, and, in its early years, even free beer for the guests. “Busloads of seniors would come from quite far away,” says Kumershek. (This year’s event, now sponsored by Wheaton Franciscan Senior Health, will be held Sept. 3.)

Above, starting opposite page (left to right): Martin Feehan gives talks about orangutans. Linda Grulke and her son Matthew volunteer together. Rachel Jones is a charter member of Zoo Pride. Mary Lynn and Tom Cinealis staff Remains to Be Seen carts. Brianne Schwantes is a new member (2009). Jessie Franz is also a Simba Society member. Three of 42 teenage volunteers in 2008 were (from left) Catilin Braun, Alyssa Zopfi and Christie Stevenson. Mark Lowry wears silly hats for education classes. Kim Haebig is a 21-year veteran of Zoo Pride. Virginia McCormick, who’s spent two decades helping with classes, reads to girls in 1998. Karen Stephany shows camel hair to Jackson Bishop, 5, in 2006.



Photo: Paula Brookmire



In 1984, volunteers also helped launch the black-tie Zoo Ball, the ZSM's biggest annual fund-raiser. Says Kumershek: "We were one of the first zoos [to hold a black-tie evening]. It was just trial and error. At the first Zoo Ball, I was there till 2 a.m. checking people out with their charge cards--\$9,000 to some people." Over the last 26 years, Zoo Ball has raised more than \$6 million. Today, up to 75 volunteers help at the event (the 2010 Zoo Ball, called "Zootopia," will be held June 26).

Educators on a Mission: "The ZSM's education department wouldn't have grown as much without volunteers," says Mary Thiry, education director from 1976 to 1999. After all, the department had only two paid staffers when it formally began in 1977. In the department's early days, volunteers taught classes and led Zoo tours (volunteers no longer teach because of the state's accreditation requirements). There was very little classroom space; so much of the learning took place outdoors. "We did a brief intro, and then bang, we were out in the Zoo," says Leutner, a schoolteacher who for years volunteered in education.

Volunteers also helped run popular education programs such as the Quilt Project (1989-1997), where children from metro-Milwaukee schools created animal-themed quilts with seniors at nursing homes. "It's a piece in our society that we're missing, taking care of older people. It was more than just making quilts and sticking patches. It taught respect," says Leutner, who was part of the Quilt Project when she worked in the Milwaukee schools.

Another volunteer, Dr. Kay Elsen (7,715 hours), a chemistry professor at Milwaukee's Mount Mary College, helped launch teacher-education programs organized by the ZSM and the University of Wisconsin Extension. She still helps teach some courses, held three times a year. Dr. Elsen also provides direction for the ZSM's Conservation Education Department by serving on the education and research and conservation committees of the Board of Directors. Today, nearly 129 volunteers work on Zoo Pride's education committee, helping ZSM instructors teach classes, leading Zoo tours and setting up classrooms. Virginia McCormick (14,250 hours), a retired schoolteacher, has volunteered in Conservation Education since 1990, putting in the equivalent of 19 full-time weeks per year. (More on volunteers and the history of the ZSM's conservation education programs at zoosociety.org/educationmemories.)

Ch-ch-ch-changes: As the needs of the Zoo and the ZSM change, so does Zoo Pride. "The committees start when there is a need for them," says Dr. Elsen. "Zoo Pride has been involved in just about everything." In the early 1980s, for example, volunteers helped prepare the ZSM's member magazine, *Alive*, for mailing. Addresses of the ZSM's then-2,500 members were stamped on metal plates for printing. "I had to hand-stamp those plates in a special machine one at a time," says Kumershek. "It was so primitive!" In recent years, in contrast, there's been a need for volunteers to help school bus drivers navigate the parking lots when dropping students off at the Zoo. Zoo Priders also are helping staff the Zoological Society's Guest Services desk in the U.S. Bank Gathering Place entrance atrium to the Zoo.

Training & Learning: It's easy to join Zoo Pride. New volunteers can get started quickly by attending two introductory sessions, one of which includes a Zoo tour. Dr. Elsen, chair of the volunteer training committee, says: "I like to work with new volunteers because their enthusiasm rubs off on the longtime volunteers." Zoo Priders who are especially interested in animals can become docents, the highest level in Zoo Pride. Potential docents must be in Zoo Pride for a year, take special classes and pass a test.

Volunteers at all levels can keep learning thanks to the continuing education committee, which organizes monthly talks by zookeepers, curators, and Zoo and ZSM managers on everything from the big cats to Zoological Society history. Brianne Schwantes, who has been in Zoo Pride less than a year, reports on some of these trainings in *Zooming In*, the Zoo Pride newsletter. "I was impressed with how many people (100-200) attend these trainings and how excited they are to learn," she says.

Another Level of Support: In addition to donating their time, some volunteers support the ZSM through the Platypus Society, the non-profit's high-end donor group, and the Simba Society, a planned giving group. (About 28 volunteers are either Platy or Simba members.) Dr. Elsen, for example, joined Simba so she could set up a trust that will eventually fund internships at the ZSM for Mount Mary College students.

By Paula Brookmire and Julia Kolker

Above (left to right): Cheryl (left), Fred and Marge Brossmann — a family of volunteers. Dr. Kay Elsen holds a 2006 award for her many years of volunteering in ZSM education programs. Jennifer May (standing) shows animal artifacts to Zoo visitors Faith Lutz, 3, and her mom, Jessica, of De Pere. Zoo Priders Jim and Nancy Redding model the current uniform (Nancy) and the original one (Jim). Laura Skoff and Barb Voight help staff Guest Services.

GRANDPARENTS GO TO CLASS

Bonnie Jaskolka was behind the scenes in the Milwaukee County Zoo's polar bear den, just several feet away from the male polar bear, which was behind thick posts. "He was much taller than you would think," she says, "and his front paws were larger than the keeper's head!" Jaskolka, of Waukesha, and her 7-year-old grandson, Clayton, were attending the Zoological Society's Polar Pals class. Watching a zookeeper feed the polar bear was awe-inspiring, she says, for both her and Clayton. It was a great opportunity to bond with her grandson.

Grandparents have as much fun as the youngsters in Zoological Society of Milwaukee (ZSM) conservation education classes, says James Mills, the ZSM's education director. "It's like grandparents get a second chance to be a kid. Much of what we teach is often new to them. We love to see the excitement they show about learning." The ZSM offers summer day camps and classes nearly year-round on topics ranging from animal sounds to zoo careers. Most classes include Zoo tours. Classes for ages 2 through 5 allow one child and one adult (age 18 or over) to register together; a parent, grandparent, aunt or uncle might typically take the class with a child. And up to five people, including at least one adult, can take the family camps and classes for ages 4 to 10. (Kids ages 6 to 14 take classes independently.)

"When I was young we never had classes like this," says Eunice Simmons of Menomonee Falls. She and her young granddaughter, Anaka Velie, take ZSM classes at least once a month. "It's a nice outing for us." In one class titled Horses, Simmons and Anaka made horse pictures and magnets (art activities are part of all classes). Afterward, says Simmons, "Anaka gave me the magnet so I would remember her."

Jaskolka has attended classes with all three of her grandchildren. While in the Carousel class she helped Libby, her 3-year-old granddaughter, color a carousel horse drawing. Later, they took a spin on the Penzeys Spices Carousel at the Zoo. "Amazingly, the horse she designed was very nearly the horse she rode," says Jaskolka.

Grandparents also serve as role models and inspire kids to learn, says education director Mills. For Jim Redding, a grandfather of six (and a longtime volunteer in the ZSM's conservation education classes), attending summer camps helped him better



ON THE WEB

The ZSM has brought conservation education to generations of zoogoers. See a photo history of our programs at zoosociety.org/Education.

Above: Anaka Velie, 2, and her grandmother Eunice Simmons, both of Menomonee Falls, have fun with crafts and activities at Little Love Bugs class last year. Above Left: Lori Van Meter of Muskego and her grandson, Zachary Solomon, 5, of New Berlin, touched an elephant foot and learned about animal coverings at a 2009 Who Am I class.

understand and value nature. "Learning about animals and their habitats made me aware of the importance of conservation," he says. ZSM classes encourage kids to respect wildlife and widen their worldview, adds Gretchen Zipperer of Pewaukee, who attends classes with grandchildren Harrison, 6, and Peyton, 3. "I enjoy the organization of the classes, safety, and the enthusiasm of the teachers and volunteers," she says. "Fun activities with learning built in – what more can you ask?"

By Benjamin Wright and Julia Kolker

REGISTER FOR CLASSES & CAMPS

There's still time to register for some of the ZSM's spring classes and for summer camps. For details, dates, times and to sign up, go online at zoosociety.org/Education. Registration for 2010 summer camps began in February.



Kids ALive

Be a Paleontologist!

What do you want to be when you grow up? How about a fossil hunter? That's one way to describe a paleontologist. These "history scientists" travel the world to dig for prehistoric fossils, footprints and plant imprints. Their discoveries help create a picture of what the world was like millions of years ago. Starting May 29 you can explore the world of dinosaurs at the Milwaukee County Zoo's outdoor exhibit Adventure Dinosaur!, sponsored by Lowe's (see story on page 6). Meanwhile, learn some of the skills of a paleontologist with the activities on these pages.

Gather your tools, identify skeletons, and dig for bones. Then go to the Zoological Society Web site at www.zoosociety.org/kidsstuff. There you can print out dinosaur "bones" and assemble your own skeletons plus try other fossil-themed activities.

Gather Your Tools

To uncover fossils, paleontologists use a variety of tools. Below is a list of some of their tools and some dinosaurs. Circle these words in the word search at right. Words can be found vertically, horizontally, diagonally and backward within the grid.

- ANKYLOSAURUS
- BRUSHES
- EXCAVATION
- FOOTPRINT
- FOSSILS
- HORNS
- MAGNIFYING GLASS
- PACHYCEPHALOSAURUS
- PALEONTOLOGIST
- PICK
- PLATE
- SKELETON
- SHOVEL



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| P | T | A | A | S | E | O | L | A | S | K | E | L | E | T | O | N | E |

Find Your Bones

Paleontologists (fossil scientists) can tell a dinosaur by its bones and skeleton. Study the skeletons of the dinosaurs below. Match the letter of the skeleton to the dinosaur in the description.



a

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Tyrannosaurus rex - carnivore; its name means "tyrant lizard."

Triceratops - three horns on its head protected it.

Brachiosaurus - its long neck helped it eat leaves on high branches.

Velociraptor - small carnivore; hunted using a big claw on each foot.

Stegosaurus - had a ridge of plates on its back.



b



c



d



e

Cast a Footprint

Find Your Bones answers: www.zoosociety.org/kidsstuff

Desert locations such as Arizona or New Mexico have been good places for paleontologists to find dinosaur footprints. They sometimes make casts of these footprints. Using sand, dough and your oven, you, too, can create a footprint cast. Follow the steps below and then go to www.zoosociety.org/kidsstuff to learn how to recycle your sand into more dinosaur crafts.

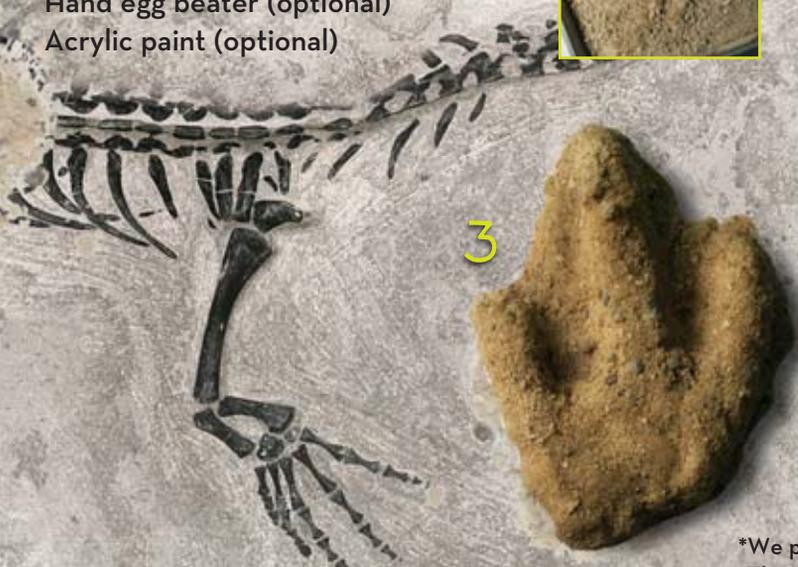
MATERIALS NEEDED:

- 8½-by-11-inch footprint stencil (print from our Web site)
- 8½-by-11-inch sheet of thick cardboard
- Glue or glue stick
- Scissors
- 50-pound bag of sand (divided)*
- 9-by-13-inch baking pan (2 inches deep)
- 1⅓ cups flour
- 3 tablespoons water
- 10-inch-diameter bowl
- Hand egg beater (optional)
- Acrylic paint (optional)



MAKING A DINO FOOTPRINT:

1. With parent's permission, print dinosaur footprint stencil at www.zoosociety.org/kidsstuff.
2. Paste footprint onto cardboard using glue; let dry.
3. With scissors, cut through paper and cardboard along outline of footprint.
4. Dump 8 cups of sand into baking pan; smooth out. Save remaining sand for other projects.
5. Press cardboard footprint 1 inch into sand. Starting at the back of the foot, gently lift cardboard out of sand.
6. Create indentations in toes and palm of footprint by pressing your fingers into the sand ½ inch deep. (1 left)
7. Using a hand egg beater, or your hands, mix flour and water in bowl until plaster is a thick, doughy ball the size of a baseball.
8. Lightly press dough ball into footprint impression in sand. Bake in an oven at 300 degrees for 50-60 minutes. (2 left)
9. Have a parent help you remove pan from oven with oven mitts. Cool pan completely before removing plaster footprint from sand.
10. Slowly place fingers in cooled sand around footprint and pull out of sand. (3 left) Add paint if you like. Give as a gift for Mother's Day.



*We purchased a 50-pound bag of sand at Lowe's for \$2.67 in January. The extra sand can be used for other craft activities on our Web site. Or you can put the sand in your garden.

The Promise of Poop



Dowgwillo views elephant habitat in Africa.

Right: Researcher Jordana Meyer uses binoculars to watch elephant herds in the park.



Is this your dream job? Wake up at 5 a.m. and hike for hours to collect large fecal droppings (poop) from elephants and rhinos in an African nature preserve. Then spend all evening analyzing your finds and entering data into the computer. For Erin Dowgwillo, a zookeeper at the Milwaukee County Zoo, it was a dream come true. "I've always wanted to work with elephants in Africa," says Dowgwillo, who cares for elephants, rhinos and hippos at the Zoo. In fall 2009, Dowgwillo spent a month as a research assistant in South Africa's Addo Elephant National Park thanks to a \$3,000 grant from the Zoological Society of Milwaukee.

The question she was helping to answer is a longtime puzzle for conservationists: How can we help elephants and black rhinos to reproduce in zoos? African elephants are threatened in their native habitats. They can be difficult to breed in captivity because some females may not have hormonal cycles that allow them to become pregnant. That's a problem because zoo elephants are great ambassadors for their cousins in the wild. Now here's the what-if: What if it's normal for some elephants to forgo breeding? Both in zoos and in the wild, elephant herds have a dominant female that acts as a family matriarch. Previous research by project leader Dr. Elizabeth Freeman, a scientist at the National Zoo (Washington, D.C.), suggests that such elephants could have adapted to save their energy for tending the "family" instead of reproducing (see below for link to online research summaries). As for black rhinos, Dr. Freeman has two goals: one, track how the animals are using the 571-square-mile Addo park habitat,

and two, study ways that hormone levels and possible parasite infections (determined through analyzing the poop) affect the reproduction of these slow-breeding, and endangered, animals.

This is where the Zoo's Erin Dowgwillo comes in. Her task was to help field researcher Jordana Meyer collect and analyze the animals' fecal samples – an accurate and non-invasive, though tricky, way to gather data on hormonal levels. Because it's nearly impossible to spot the park's 40 black rhinos, Meyer set up eight motion-triggered digital cameras in spots where these reclusive animals were known to roam. Every morning, Dowgwillo and Meyer checked the images and collected the nearby fecal samples. Afternoons were devoted to observing some of the park's nearly 400 elephants socialize near waterholes and collecting samples after the animals had gone.

The rhino samples, stored and analyzed for pregnancy using small field kits, were later shipped to Chicago's Lincoln Park Zoo for further study (none of the animals was pregnant at the time). The elephant fecal samples were sent to the National Zoo at the Smithsonian Institution. The project is expected to run for at least another year, and results could be published in scientific journals by 2011, says Dowgwillo. The data will also help Addo staff manage the park's elephants and rhinos, and to determine if birth control given to the animals is effective. (Selected animals are given birth-control hormones so that park staff can find a mate that is a good genetic match.)

For Dowgwillo, the month-long experience helped her to better understand elephant behavior at the Zoo. For example, the Zoo's two elephants, Brittany and Ruth, greet each other with touching and trumpeting after they're separated, even if it's for just a few minutes. In the wild, this is a natural behavior for these very social animals, says Dowgwillo. Seeing elephant behavior first-hand can help zoogoers appreciate elephants, the largest of land mammals.

Zookeepers such as Dowgwillo can help scientists ensure that elephants survive and thrive, both in the wild and in zoos.

By Julia Kolker

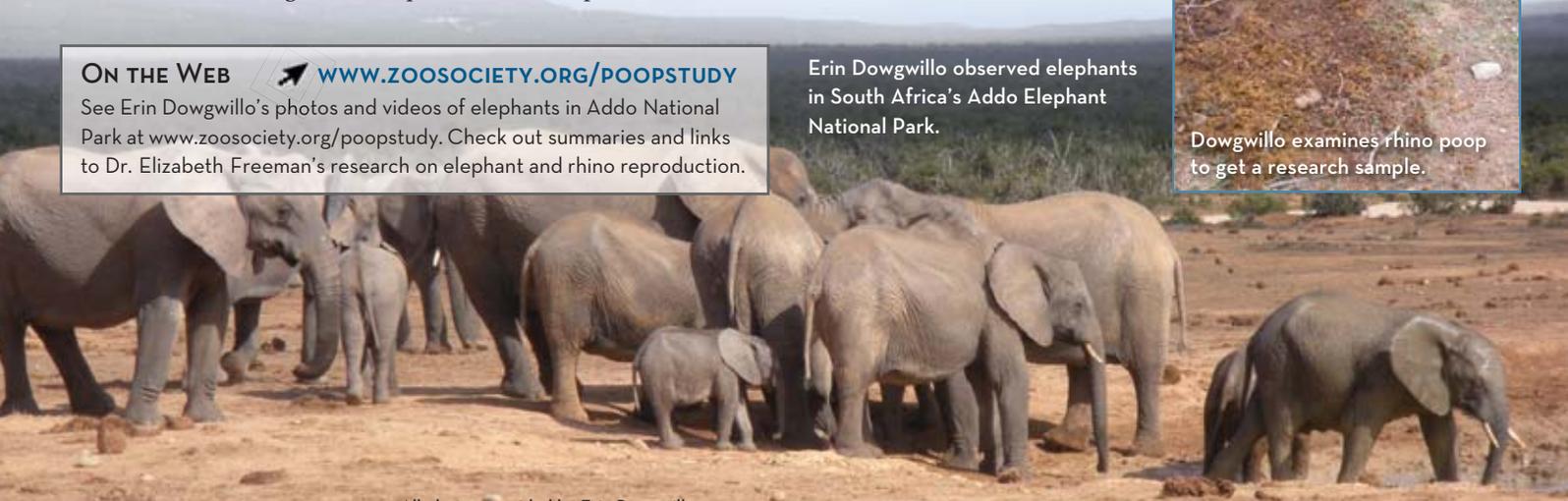


Dowgwillo examines rhino poop to get a research sample.

ON THE WEB WWW.ZOOSOCIETY.ORG/POOPSTUDY

See Erin Dowgwillo's photos and videos of elephants in Addo National Park at www.zoosociety.org/poopstudy. Check out summaries and links to Dr. Elizabeth Freeman's research on elephant and rhino reproduction.

Erin Dowgwillo observed elephants in South Africa's Addo Elephant National Park.





Laysan Teal

Arrived: May 28 and June 3, 2009
Herb & Nada Mahler Family Aviary

In the early 20th century, the Laysan teal almost became extinct when its population dropped to only 12 ducks on Laysan Island, one of the western Hawaiian Islands. For thousands of years before then, these beautiful brown ducks with a few teal-colored feathers on their wings were plentiful on all the Hawaiian Islands. The teal population dwindled due to hunting for their feathers and to the introduction of a European rabbit species, which devoured the ground vegetation the teals relied on to hide their nests. By 1905 there were only seven adult males and five juveniles left. In 1909, the Hawaiian Islands Wildlife Refuge put the Laysan teal under its protection by moving them to an area without predators and competition for food. Five years ago, 43 Laysan teals were brought to the Midway Atoll National Wildlife Refuge in Honolulu on the island of Oahu. Having teals on two islands would prevent their decimation if a disaster happened on one of the island habitats. As of this century, the Laysan teal population is around 800 ducks, 581 counted on Laysan Island in 2004 and 200 counted on Oahu in 2007. (Statistics are from the International Union for the Conservation of Nature.) These birds aren't just rare in the wild, but in captivity as well. In North America only nine zoos exhibit Laysan teals, including the Milwaukee County Zoo. Two of these teals arrived in Milwaukee last year, a male and a female, the only ones at our Zoo. "We have them here at the Zoo because of their unique wild status, and the fact that they make nice exhibit birds," says Alex Waier, the Zoo's bird curator. "My goal is to breed them if I can find interest from others zoos to take the offspring. I would like to see more zoos exhibit these ducks."



Impalas

Born: Nov. 16 & Nov. 26, 2009 (Korintje and Cassia)
Arrived: Dec. 6, 2009 (Riccolini)
Holz Family Impala Country

The Milwaukee County Zoo's two young impalas, Cassia and Korintje, are full of sisterly love. They were born within 10 days of each other last November. They share the same Dad, Lloyd (who has since left Milwaukee to join the Dallas Zoo). Over winter, they've bonded in Winter Quarters, an indoor, off-exhibit area for warm-weather animals. Cassia's early days were a bit rocky. Her mom, a first-timer called Nutmeg, wouldn't nurse her; so Cassia lived in the Zoo's Animal Health Center and got bottle feedings. By early January, Cassia was strong enough to join the impala herd, says area supervisor Dawn Wicker. Keepers continued the bottle feedings and Cassia was seen nibbling on alfalfa and pellets, like the other impalas. Korintje, who was successfully nursed by Mom Saffron, once came up to give the bottle some friendly sniffs. Impalas, native to central Africa, are excellent runners and jumpers that can leap distances of up to 30 feet. This spring, you can spot the herd romping outside when the weather is at least in the upper 40s and sunny. Look for a new 3-year-old male impala called Riccolini, who arrived in December in hopes he would eventually breed with one of the Zoo's seven female impalas. They're a "spicy" mix! Many are named after cooking seasonings, and both korintje and cassia are types of cinnamon. Other names are Cinnamon, Cilantro (herb) and Doruba, which loosely translates as "blizzard" in a Swahili dialect. Riccolini is a type of pasta.





Zootastic

A night of animals, music and fun

Sponsored by Johnson Controls, Inc.
Media sponsors: metroparent and milwaukee moms.com

Friday, April 23, 2010

5 - 9 p.m.

at the Milwaukee County Zoo
10001 W. Blue Mound Rd., Milwaukee

Get wild with us. Come to the Zoo for an after-hours family party at the Zoological Society's new event, Zootastic! Help raise money for the animals and have fun!

- "Travel" to exotic locations in the Zoo for insider animal talks on Zoo favorites: Mahal the baby orangutan, Happy the hippo, Tula and Nuri the tiger cubs, Pat the cat.
- Pizza donated by Palermo's® Pizza; popcorn donated by Tri City National Bank.
- Dance party with a DJ to celebrate the Zoological Society's 100th birthday
- Ice-cream sundae bar
- Photo booth for free family pictures
- Eco-friendly kids crafts
- Raffle with family-themed prizes

Register

www.zoosociety.org/zootastic

Cost*

\$75 per family of four

For smaller families or additional children**:

\$15 children 12 and under

\$25 ages 13 and up

Amba, Amur tiger



Registration is limited to the first 500 people and will be open through April 9, 2010, unless the event fills prior to that date. Only phone registrations will be accepted after April 9. Cancellations before April 9 are refundable, minus a \$10 processing fee. Cancellations after April 9 are not refundable. For more information, go to: www.zoosociety.org or call (414) 258-2333.

*Tax-deductible values online

**All children under age 18 must be accompanied by an adult

Guests can nosh on popcorn samples from an old-time popcorn wagon, courtesy of Tri City National Bank.



10005 W. Blue Mound Rd., Milwaukee, WI 53226
www.zoosociety.org

