Growing Up

What’s New...and What’s Next?
Red Pandas Leave the Den
Lincoln Park Zoo's first-ever red panda cubs, Clark and Addison, spent months growing behind the scenes before making a colorful debut this fall.

Growing Gorillas
Three kids and a bunch of bachelors make for some lively interactions at Regenstein Center for African Apes, with scientists tracking every move.

What's New with Obu?
The littlest snow monkey at Regenstein Macaque Forest is getting plenty of play in—and trying out his exhibit's touch-screen booths!

Plans in Place
Adolescence isn't easy for anyone, but the zoo's animal care experts and population biologists plan ahead to stay on top of some wild transitions.

Catching Up with King
Black rhino King isn’t a baby anymore. Now a bachelor, the massive mammal has turned 2 years old and hit the 2,000-pound mark.

Foster Feathers
Our European white stork pair has raised a number of chicks…but this summer’s hatch was the first to be laid in another nest.

Growing the Next Generation to Care
Animals aren’t the only ones growing—Lincoln Park Zoo has a range of new education programs to enlist young visitors as ambassadors for wildlife.

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Good to Grow

If you were asked, “who’s growing at Lincoln Park Zoo?” we couldn’t blame you if your answer focused on red panda cubs, rambunctious gorillas or a juvenile black rhino. These young animals are all changing right before our eyes, and it’s a joy to see them make the transition from baby to 2,000-pound 2-year-old in the case of black rhinoceros King.

But even as a 147-year-old institution, Lincoln Park Zoo isn’t done growing itself. Indeed, we’ve constantly changed with the times. As we learn more about animal needs, the zoo has never hesitated to replace old methods with state-of-the-art approaches to conservation, education and animal care.

This commitment to growth can be seen in new zoo buildings under construction now. The Walter Family Arctic Tundra will feature pools for polar bears to dive in…as well as ample tundra for these predators to roam over, reflecting the latest knowledge about the species’ needs. Next door, the Robert and Mayari Pritzker Penguin Cove will incorporate cozy nest boxes for African penguins, giving us a chance to grow the next generation of this endangered species. The new exhibit will also allow some visitors to enter the exhibit with these lively birds—creating a powerful connection to conserving them.

Animal care isn’t the only area to advance, of course. The zoo’s educators are doing better than ever, as reflected in the Top Honors in Education award they received at the 2015 Association of Zoos and Aquariums Annual Conference. The recognition honors their Partners in Fieldwork program, which enlists high school students to study local wildlife alongside the zoo’s Urban Wildlife Institute. It also highlights the importance of the new Education Center we’re building alongside the polar bear and penguin habitats, offering young learners a dedicated space for connecting with wildlife and careers in science.

We’re even growing to embrace new partners. This fall Lincoln Park Zoo is embarking on an unprecedented collaboration with Chimp Haven, a sanctuary in Keithville, Louisiana that offers a refuge to retired chimpanzees from the medical industries. The partnership aims to expand Chimp Haven’s education and research programs using some of the knowledge we’ve gained over 10 years at Regenstein Center for African Apes. But our two institutions will undoubtedly learn a lot from one another as our partnership matures…just like our new arrivals.

Kevin J. Bell
President and CEO

Two-year-old eastern black rhinoceros King offers a visible sign of zoo growth, but Lincoln Park Zoo’s new partnership with the Chimp Haven sanctuary highlights how our institution continues to embrace change after 147 years.
Red Pandas Leave the Den

Red pandas are one of the more colorful species at Lincoln Park Zoo, making it all the more notable that for the first months of our new cubs’ lives the pair could only be seen in black and white.

The two cubs—the first ever at Lincoln Park Zoo—were born June 25 in a behind-the-scenes den at the Kovler Lion House. As is customary in the wild, the pair spent their first months of life in a secluded spot, being tended to exclusively by mom Leafa.

But while the cubs were growing out of sight, a “den cam” rigged up by animal care staff ensured they weren’t invisible. Grainy black-and-white footage captured their first squeaks in the den—and indeed, the moment of one of their births! (Go to www.lpzoo.org/redpanda if you want to see how a red panda cub enters the world.)

The cubs made their first color appearance with a physical exam with Lincoln Park Zoo’s Veterinary Services Department on July 10. Photos taken by Curator of Mammals Mark Kamhout offered a rare look at this vulnerable species in its first weeks of life. The cubs’ eyes were still shut, and their fur bore the faint yellow coloration of birth. “It was a quick check-up, but it let us confirm that mom was doing a great job rearing the pair,” says Kamhout.

The exam also confirmed the cubs’ sexes—one male and one female. As they returned to their dens, they received some Chicago-centric names from longtime Lincoln Park Zoo donor Sharon Zackfia: Clark and Addison, matching the intersection that’s home to another set of Chicago Cubs.

Growing Out of Sight

More black-and-white updates followed. As Clark and Addison grew, their eyes opened, they developed the bushy, raccoon-like “mask” that defines the species and they even engaged in some rough-and-tumble play in their cozy enclosure, prompting the occasional intervention from mom. The pair received their first vaccinations—and debuted the species’ bright-red fur—August 25, but then it was back to the den to continue to navigate the transition from infancy to independence.

“It’s a process,” says General Curator Dave Bernier. “At first the mom and the babies are totally dependent on one another. Then the kids are generally ready for some independence, but mom isn’t ready to give it to them. Finally mom’s comfortable, and they take the next step.”

That’s how it played out for Clark and Addison. By August, the pair was already trying to leave the den, but Leafa wasn’t having it. It wasn’t until September that they peeked their whiskers outside. Then the pair had to work on climbing skills in the species’ behind-the-scenes space at the Kovler Lion House before finally making their public debut this fall.

Cute Climbers

Red panda cubs follow a similar path to independence in the species’ native Himalayan mountain range, although the secluded dens that house cubs in China, Nepal, India, Burma and Bhutan are more likely to be leaf-lined tree holes and less likely to be wired with cameras. Wild red pandas inhabit elevated forests, feeding on bamboo shoots and leaves, much like the black-and-white species with which they share a name (although not much actual kinship—genetic testing has placed red pandas in their own biological family). Individuals are largely solitary, defining separate territories via scent marking and coming together only to breed.

While wild red pandas find their own mates, the pairing at Lincoln Park Zoo was carefully scripted, with Leafa and mate Phoenix coming together thanks to a recommendation by the Red Panda Species Survival Plan®, a shared management effort by zoos throughout the Association of Zoos and Aquariums. The resulting pregnancy was closely monitored as well, with hormone analysis from the zoo’s Davee Center for Epidemiology and Endocrinology confirming Leafa’s condition and regular, voluntary ultrasounds helping animal care experts keep tabs on mom and the cubs as they developed.

“Red panda cubs do most of their growing out of sight,” says Kamhout. “We’re glad we were able to bring at least some of the process out into the open.”

More Cub Updates

Watch Clark and Addison grow from birth to debut at www.lpzoo.org/redpanda
Growing Gorillas

BY CRAIG KELLER
Triple Play

Three is a charm for the western lowland gorilla group led by silverback Kwan at the zoo’s Regenstein Center for African Apes. Patty and Nayembi—female toddlers born one month apart on October 11 and November 16, 2012—recently turned 3. And on February 24 of this year the troop welcomed another baby girl, Bella, transforming the tiny dynamic duo into a trio. These half-sisters have three different moms, although they share the same dad—Kwan.

“It’s really nice to have similarly aged kids in a group. Pretty soon I think we’re going have the three amigas—totally inseparable,” says Curator of Primates Maureen Leahy.

Leahy is referring to Bella’s growing mobility, which will allow the little one to join her half sisters on her own terms as a playmate, not as their plaything. During the first few months of her life—when mom Bahati permitted—Bella was often toted around every inch of the family’s spacious indoor habitat by Patty and Nayembi. The behavior was endearing to zoo visitors but perhaps not as much so to Bella.

“Now that Bella can crawl, she has options,” says Leahy. “If she doesn’t want to be carried around anymore by her older sisters, she’s like, ‘I’m out of here!’ when they put her down.”

All three girls are still very much dependent on their moms, who invariably keep the choicest meal items for themselves. That behavior—common among gorilla parents—hasn’t completely stymied the nimble Patty and Nayembi.

“On occasion they’re so fast their parents don’t even notice when they’ve taken something good and run away with it,” says Leahy. Sometimes, though, the kids get caught red-handed.

“One day, while Kwan was focused on a cognition touch-screen session, he dropped an orange peel, and Patty tried to come over and steal it from him,” says Leahy. “He gently put his hand down and held her for what seemed like a long time—probably it was just three seconds—and then let her go. She took off right away. He’s a great dad, but he does discipline his kids.”

Kwan does permit Patty to engage in touch-screen sessions after he takes his turn. The sessions challenge gorillas to recall symbol sequences on a computer touch-screen positioned on one side of the exhibit. Participation is voluntary, although grapes dispensed for correct responses provide tasty motivation. Patty is the youngest ape ever to participate in the 11-year-old project.

She has enjoyed the fruits of her labors. After seven months the precocious toddler was consistently sequencing five symbols, outpacing many of the adult participants.

Fisher Center researchers have also collected daily behavioral and social-spacing data on the three youngsters—just as they’ve done for every gorilla and chimpanzee who’s resided at Regenstein Center for African Apes since its opening in 2004. Tapping away on computer tablets, they take note of the distance between individuals in each group. They record every playful interaction, every vertical climb, every bite of food, every sneeze from a tablet-app ethogram list of more than 90 nuanced behaviors.

Being able to analyze past data does more than inform in-depth academic studies. It also provides animal care staff with verification of behavioral patterns over time that can help explain changing social interactions or why an individual is foraging in a different part of an exhibit.

“We collect that data literally from the day they’re born,” says Steve Ross, Ph.D, director of the zoo’s Lester E. Fisher Center for the Study and Conservation of Apes. “We have data on Bella within hours of her birth and practically every day since.”
Peace Accord
The same mountain of data exists for Amare, who was born at the zoo in 2005 and is now part of a four-member male bachelor gorilla group in the building's south exhibit.

“It would be like if you stuck a Fitbit on your kid from the moment he or she is born and collected that data every day,” says Ross. “Typically, a parent gets information from annual visits to the doctor. Imagine that multiplied on an hourly and daily basis. We have thousands of hours of data for all our gorillas and chimpanzees.”

That’s played a big role in helping researchers and caregivers track the development of the bachelor group since its formation in 2012.

Both Ross and Leahy refer to the bachelor group as a success story. Bachelor groups are common in the wild but can go through periods of instability as social roles are established and challenged among individuals. After the zoo’s four juvenile males—Amare, Azizi, Mosi and Umande—were introduced it quickly became apparent that Azizi, the largest and oldest of the four, was going to be the boss.

“At the very beginning it was tenuous because there was aggression,” says Ross. “Not that we don’t expect that. Part of being an ape is asserting your dominance and hierarchy. With our long-term behavioral monitoring data set, though, we’ve seen aggression and tension levels going down over the past two years. And we’re currently looking at data on spacing, which is really important for gorillas. Sometimes their behaviors are so subtle it’s difficult to use that as an indicator of how things are going. It can be more useful to look at how they space around each other.”

Amare, Mosi and Umande continue to space around Azizi, but the dominance hierarchy is so clear and accepted by all that stability has taken root. In recent months they’ve often been seen resting comfortably in close proximity to each other.

“Sometimes in bachelor groups there are takeovers and different leaders as individuals grow at different rates,” says Ross. “I don’t think that will be an issue for us because Azizi is just so much more dominant.”

That also means Azizi takes most of the touch-screen cognition sessions for himself and rarely allows the others a chance. The massive, stocky 12-year-old with a pronounced brow and fierce-looking gaze sequences symbols regularly and at much higher levels than any other ape at Regenstein Center for African Apes. “He’s doing college-level work, and the other guys are still in primary school—in part because they just don’t get enough class time,” says Ross.

And yet, in the most exciting development to date, Azizi has gradually warmed to playful overtures from his troop mates. Mosi and Umande gradually broke the ice by dangling a tablecloth over Azizi—a safe sort of remote playing before actual physical contact, says Leahy.

“We’re seeing some really positive interactions between Azizi and the other males,” says Leahy. “We’ve actually seen play bouts between Azizi and Umande and Azizi and Amare, and Mosi has even done a little toe tickling.”
One baby living with eight adults doesn’t have to work too hard for attention. That’s an understatement for Obu, the male Japanese snow monkey born May 2 at Regenstein Macaque Forest. After just three months the troop’s tiniest member was also among its most active and exploratory.

“He’s been climbing on all the other monkeys—especially his mom, Ono, and adult male Miyagi—and they all seem to like him,” says Katie Cronin, Ph.D., a research scientist in the zoo’s Lester E. Fisher Center for the Study and Conservation of Apes. “We’ve also seen him hanging in a hammock and venturing close to the edge of the hot spring and sticking his hands in there.”

How fast do snow monkey babies grow up? After a few months Obu was eating solid foods and foraging for veggies close to mom. Ono keeps a close eye on her energetic son, who will fully mature at about 4 years, but “moms start pushing their kids to be more independent early in their lives,” says Cronin. “Proximity varies with the day or mood. Sometimes mom pulls him back or he runs back on his own.”

Once, in what was likely a rare event, zoo researchers recording behavioral and spacing data on the troop watched Obu amble up to the visitors’ viewing window while Ono lingered in the far back of the exhibit.

Their bond is close, though, and having the only kid in the troop has possibly moved Ono up in rank among the troop’s five females. “The others are paying more attention to her and grooming her more often,” says Cronin. “Although it’s also possible they just want to be closer to the baby, and by grooming Ono they get a little closer to Obu.”

When Ono decides to enter the exhibit’s research booth where Cronin conducts computer touch-screen cognition studies, she never does so without Obu. “And she won’t leave him alone in there either,” says Cronin. “Even though he’s just a few months old, he has already touched the symbols we flash on the screen. He may not know this is a way to get treats yet. It could just be the sudden appearance of the image that catches his attention.”

The food dispensed when mom touches the dot also gets Obu’s attention.

“Obu grabs the carrots that Ono doesn’t much like and shoves them in his cheek pouches,” says Cronin. “And sometimes he pulls down Ono’s lips to look for food. She’s very tolerant when he does it. No other adult in the troop would let him get away with it!”
Leaving the nest. Spreading your wings. Cutting the cord. Pick your favorite cliché about adolescence, and it probably involves one party wanting to get the heck away from another one.

The yearning isn’t just limited to humans at the mall food court, either. Plenty of species have youngsters that are cuddling up to mom one day and ready to strike out on their own the next. In zoos, this natural change is part of the careful planning process that accompanies any new arrival, with caregivers keeping careful watch to see when hormones may surge and population planners crunching the numbers to ensure that each bouncing baby has a safe place to land when it’s all grown up.

Waiting for the Change
Lincoln Park Zoo’s curators agree that anticipating adolescence in animals starts with the calendar. “We generally know from the wild what ages different species are prone to leaving the natal group to find their own,” says Curator of Primates Maureen Leahy. That doesn’t mean caregivers are in a rush for animals to leave home, though. “We often look for ways to manage them in their birth group as long as the social dynamic works well,” Leahy adds. Many primate species learn appropriate parenting behaviors by observing or participating in care themselves. And if animals are receiving appropriate companionship, why disrupt a happy family?

Such a dynamic can be seen with the zoo’s white-cheeked gibbon family at the Helen Brach Primate House. It consists of mom Burma, dad Caruso and male offspring Sai (5 years old) and Daxin (2 years old). Caruso has traditionally been a tolerant dad, reports Leahy. Indeed, the pair’s first offspring, Kien Nhan, didn’t leave his parents until he was nearly 8 years old—and that’s only because he received a breeding recommendation at Stone Zoo from the Gibbon Species Survival Plan®, a shared management effort by zoos throughout North America.

Caruso’s tolerance isn’t the only factor keeping the gibbon group together. There’s a strong incest taboo in the species, Leahy says, meaning caregivers aren’t overly worried about inappropriate contact. Moreover, the gibbon population in the Association of Zoos and Aquariums is male heavy, so Daxin and Sai aren’t besieged with available mates. Keeping them in their birth group is a nice solution for everyone.

With other species, harmony isn’t so easy to come by. The crowned lemur family at the Helen Brach Primate House—a matriarchal species—saw older male offspring socially ousted from the group after the arrival of female babies Sava and Volana in 2014 and 2015, respectively. With each new baby, mom Tucker,
followed by Sava, made it clear that it was time for the boys to leave the group. Caregivers acted quickly to offer alternate housing, of course, and now boys Azizi and Nuru have found new homes and social companions at Birmingham Zoo and Omaha’s Henry Doorly Zoo and Aquarium thanks to recommendations from the Crowned Lemur Species Survival Plan®.

Primates aren’t the only groups that see growing animals eager to find their own swinging pads. Curator Diane Mulkerin has overseen some recent changes in the Antelope & Zebra Area, where juvenile hoofstock showed signs of being “hot to trot.” Grevy’s zebra colt Kito, who turned 3 in August, now has his own territory separate from mom Adia. “He was reaching the age where he’d be sexually mature, and that’s when he’d leave in the wild as well,” says Mulkerin.

Similarly, Sichuan takin calves Xing Fu and Mengyao, along with little brother Kalsang, split from their mothers Mei Li and Jinse this summer after the 2-year-olds started to display some decidedly grown-up behaviors. The boys are now a group unto themselves as Mulkerin works with the Sichuan Takin Species Survival Plan® to find an appropriate new home. “The boys have a great time enriching themselves,” Mulkerin says. “They’re always pushing each other around.”

The colts and calves all spent a couple years with their birth groups, but for smaller species, the turnaround can be even tighter. Mulkerin relates the story of a baby Prevost’s squirrel at Regenstein Small Mammal–Reptile House, who aged out of its birth group just three months after arriving this summer. “They mature that quickly,” she says. “And squirrels that are reproducing don’t take longer than that to get ready for the next batch of kids.”

Planning Ahead
While the zoo’s caregivers monitor individual animals, the scientists at the Association of Zoos and Aquariums Population Management Center, headquartered at Lincoln Park Zoo, are responsible for keeping tabs on entire populations. Expert matchmakers, Population Management Center scientists break down family trees to suggest the best pairings to promote genetically healthy
zoo populations. Of course, every new arrival grows up, so PMC experts are very cognizant of available space in North American zoos—and how quickly different species mature.

“Most Species Survival Plans try to set a time period for how long animals should stay with their natal group,” says PMC Director Sarah Long. “That helps planning—if two years is normal for a particular species, we know we don’t have to place animals for two years. It also lets the animals grow in a natural environment.”

Like the rest of us, population planners are happy to let kids be kids. But when growing animals seem ready to strike out on their own, they rise to the top of the list in the PMC’s regular planning meetings. “A lot of times we’ll look at the ones on the cusp of dispersal age and start thinking of them as available,” says Long. “We look at their genetics and think of them as a potential match for other animals with good genetics. They’re optional animals to move in the plan—they can help us take advantage of opportunities, but we also know we don’t need to place them immediately.”

Of course, timetables differ for different species. Guam rails, which are extinct in the wild, mature rapidly and aren’t eager to hang out with mom and dad, meaning population managers have to plan their futures twice a year. For faster-maturing species, such as amphibians or American burying beetles, scientists often make recommendations based on data from a generation back just to keep up with the pace of breeding.

Even slow-maturing species require you to plan ahead. Take western lowland gorillas, for instance. These endangered apes frequently remain with their birth groups for six to eight years. Growing males may be paired with a mate or grouped in all-male bachelor groups, which provide a natural social structure when mating isn’t recommended. Even the all-male option is time-dependent, though, meaning zoos have to plan for it years in advance, as they did with the current bachelor group of Azizi, Amare, Mosi and Umande at Regenstein Center for African Apes, which came together in 2012.

**Further into the Future**

While the Population Management Center aims to make the best matches among current zoo populations, another group of experts is taking an even broader view of population health. A team at the Alexander Center for Applied Population Biology, led by Vice President of Conservation & Science Lisa Faust, Ph.D., is conducting population viability analyses for hundreds of zoo species. By modeling the status of species in 100 years, Faust’s team can calculate how potential changes in management can affect the long-term health of zoo populations.

Are more babies needed to ensure a healthy population? Is more zoo space a recipe to thrive? Using computer models to answer these questions ensures that zoos are collectively planning a sound future for the animals in their care. Even if that future arrives one individual at a time.
Baby King isn’t a baby any more. The eastern black rhinoceros, who came into the world on August 26, 2013 weighing 60 pounds, now tips the scales at more than 2,000. But the obvious growth at the Harris Family Foundation Black Rhinoceros Exhibit isn’t the only sign of the young mammal’s maturation. There’s also the fact that, after nearly two years of being inseparable from mom Kapuki, the little rhino is now a bachelor.

Yes, King has left the nest. And unlike some human offspring, his path to independence wasn’t a drawn-out process. “One day King went from being Kapuki’s son to just being a male rhino,” reports General Curator Dave Bernier.

The sudden shift may sound harsh to us, but it’s a parallel to how this endangered species operates in the wild. In the scrublands of eastern Africa, mother rhinos will literally drive their kids away once they deem them old enough. In Kapuki’s case, she went “on alert” one day at King’s presence, ears raised and eyes wary, refusing to turn her back until caregivers shifted him to a separate space.

“It’s usually more gradual than that, but this was instant,” says Bernier.

Fortunately, the zoo’s animal care staff had been preparing for this eventuality for months. Both King and Kapuki had been undergoing separation training before their permanent split, spending anywhere from 15–60 minutes each day apart from one another. The immediate goal of the separation was to help the rhinos focus on their daily training for voluntary blood draws—a nice way to reduce the stress of routine care. But it proved invaluable when King found himself entering the next stage of life.

For now, King, Kapuki and male rhino Maku (King’s dad) split time between the two outdoor exhibits at the north end of the Harris Family Foundation Black Rhinoceros Exhibit. The youngest rhino at the zoo still gets plenty of enrichment, playtime and attention from keepers. After all, he’s still a kid…even if he doesn’t look it.
Most of us are familiar with the myth of storks dropping off babies for human parents. The story raises an obvious question, though: where, then, do baby storks come from?

In the case of the latest European white stork to hatch at Lincoln Park Zoo, the answer was Detroit. The Detroit Zoo, specifically, where its egg was originally laid.

So how did a stork laid in Detroit come to hatch in Chicago? The answer comes down to careful planning by Lincoln Park Zoo’s Population Management Center and the European White Stork Species Survival Plan® (SSP), a collaborative management effort by zoos throughout the Association of Zoos and Aquariums (AZA).

The stork pair at Regenstein Birds of Prey Exhibit, Jethro and Cheyenne, are practiced parents, having reared nine chicks together at the zoo since 2010. Because of this success, the pair’s genetics are pretty well represented in the AZA stork population. As a result, Jethro and Cheyenne have received recommendations not to breed in recent years.

The stork pair at Detroit Zoo, on the other hand, is genetically valuable; they represent a new lineage for the SSP population. To boost the odds of success for their latest clutch of eggs, the Stork SSP recommended that one of the eggs from their nest be nurtured by the proven parents at Lincoln Park Zoo. “We’re getting the benefit of both pairs by literally putting their eggs in a different basket,” says Population Management Center Director Sarah Long.

The plan, which involved a well-incubated handoff at a spot between the two cities, was a success, with the chick breaking out of its shell May 7. The little stork received Jethro and Cheyenne’s standard top-notch care in a stick nest at the south end of the exhibit. By fall it was almost full grown, nearly indistinguishable from the pair that reared it.

The stork swap was a first for Lincoln Park Zoo, but Hope B. McCormick Curator of Birds Sunny Nelson is open to repeating the process to benefit another population. “Both birds have to be nesting on the same schedule for it to work,” she says. “Fortunately, they were, and the results have been great.”
Connecting Students and Scientists
Chicago teens Shazia Hassan and Dessiree Rivera probably didn’t expect their summer internships at Lincoln Park Zoo to produce results zoos scientists would incorporate into their professional research. But that’s exactly what happened during their participation in the zoo’s Research Apprenticeship Program over the past summer.

The annual program, developed in 2013 by the zoo’s Hurvis Center for Learning Innovation and Collaboration, pairs a select group of high-achieving Chicago high school students with scientists in the zoo’s Urban Wildlife Institute and Davee Center for Epidemiology and Endocrinology. Hassan and Rivera were matched with the latter to learn about the zoo’s research into animal hormones. The Davee Center team-up had them map a black rhino exhibit to collect behavioral and spacing data with the Lincoln Park Zoo–developed ZooMonitor app. The two teens also spent time in southwest Cook County’s Saganashkee Slough swabbing the skins of northern leopard frogs to collect stress hormones. That pioneering study, exploring links between stress and the spread of the deadly chytrid fungus, later netted Davee Center Wildlife Disease Ecologist Mary Beth Majerovic, Ph.D., an award from the Animal Welfare Institute.

Not everyone who participates in a zoo education program will become a scientist toiling on behalf of wildlife conservation. But examples like these highlight the zoo’s aim to transform science education from a classroom exercise to an action-oriented experience connected to zoo conservation work in Chicago and around the world.

“The rhino-yard mapping was part of a hormone study designed to see if construction of an adjacent zoo exhibit was increasing the rhinos’ stress levels,” says Leslie Sadowski-Fugitt, the zoo’s manager of student and teacher programs. “It turned out that auditory stimuli didn’t seem to bother the rhinos. Davee Center researchers now have a new hypothesis that unexpected visual objects might stress them out more. The map created by those two young ladies will be used by the zoo for years to come. They were pretty proud of that.”

Partners in Fieldwork, another Hurvis Center–incubated program launched in 2013, has also yielded useful research data for zoo scientists. Generously supported by Blue Cross and Blue Shield of Illinois, the program introduces Chicago high school teachers and students to research methods used by the zoo’s Urban Wildlife Institute. Students document wildlife in their communities with motion-triggered cameras, survey bird species along mapped transects and detect bat species with acoustic devices that record echolocation calls. The hands-on program is a hit, winning Top Honors in Education at the 2015 Association of Zoos and Aquariums Annual Conference.

Four new schools signed on for the current installment of Partners in Fieldwork, but zoo educators are happy to see four other schools participating for a second year. “It’s beneficial to have repeat schools because the Urban Wildlife Institute wants multiple years of data from the same camera-trap and bird-survey locations for its ongoing biodiversity

Research Apprentices Shazia Hassan and Dessiree Rivera processed samples in the zoo endocrinology lab and mapped a black rhinoceros habitat as part of their hands-on summer science learning at Lincoln Park Zoo.
monitoring project,” says Sadowski-Fugitt. “Those schools, as Tier 2 participants in the program, can offer new schools support and tips on curriculum implementation in the classroom.”

The Right Kind of Peer Pressure
Zoo educators hope to create a similar ripple effect with Chicago Environmental Stewards, a new Hurvis Center program for fifth-grade classrooms in the city. Students will not only learn to become active wildlife stewards within their communities—they’ll also hold a peer-advocacy event at their school to share their experience with students in lower grade levels.

“When we talk about peer teaching it often involves older students, but we think fifth-grade students have something to share with their younger peers as well,” says Emma Martell, the Hurvis Center’s education manager.

Patterned after Partners in Fieldwork, but with a less rigorous research focus, the program is designed around the Urban Wildlife Institute’s PRO-wildlife outreach messaging: Protect, Restore, Observe. Posters listing conservation action steps for each of those directives will be displayed in classrooms. Students from the six participating schools will take part in zoo-led field trips to Nature Boardwalk at Lincoln Park Zoo and green spaces in their own neighborhoods. They’ll channel what they learn about ecological diversity in urban environments into action projects focused on conserving an animal group of their choice—from invertebrates to birds.

“That could mean planting native grasses or putting up bird houses,” says Martell. Because the schools are dispersed across the city, students are likely to encounter a wide variety of plant and animal life. “It will show them that Chicago is a city of ecosystems and motivate them to play an active role in nurturing their own,” she adds.

Peer advocacy, environmental stewardship and scientific career exploration coalesce in another new Hurvis Center program launching this fall. Up to 20 teens from grades 9–12 will serve on the zoo’s first Conservation Ambassadors Board. The group will meet twice a month with zoo educators and other staff from various zoo departments throughout the school year. The ultimate goal: to have board members plan two conservation-advocacy events at the zoo, managing every aspect of the program, from logistics to marketing. The first event in January 2016 will promote Project ChimpCARE, the zoo’s nationwide initiative aimed at providing appropriate housing and care for all chimpanzees. The second, planned for spring 2016, will promote projects led by the Urban Wildlife Institute, such as Chicago Wildlife Watch, a web project that enlists local residents to ID species photographed by motion-triggered cameras.

“We have events like Wine & Wildlife to connect adult audiences with our research and science, but we haven’t had many
public events for teens that do that,” says Martell. “And who better to plan events that speak to teens than teens themselves?”

Using Our Super Powers for Good
Lincoln Park Zoo’s commitment to inclusive access for kids reaches beyond schools. On Tuesday, September 15, the zoo presented DreamNight, an evening of special programming and entertainment for families with children who have chronic healthcare needs.

DreamNight is an international initiative that’s been hosted at more than 300 zoos and aquariums in more than 35 countries. For its first DreamNight, Lincoln Park Zoo partnered with Ann & Robert H. Lurie Children’s Hospital, The University of Chicago Medicine Comer Children’s Hospital and the Make-A-Wish Foundation to distribute invitations and program special accommodations for these special guests.

“It can be hard for these children and their families to visit the zoo during normal operating hours with crowds,” says Martell. “We’re providing a quiet, safe setting for them to have a normal visit to the zoo.”

Well, not quite normal. The evening’s “Animal Superheroes” theme meant that some zoo staff members wore superhero costumes instead of standard uniforms, and animal enrichment píñatas were decorated with superhero logos. The evening also included train and carousel rides, education activities, face painting, refreshments and free parking for guests thanks to a generous gift from the John Hart and Carol Prins Fund for Visitors with Special Needs.

Sensory Tours Offer a New Zoo Experience
Special accommodations for blind and visually impaired guests are now provided any day of the year through a recently developed sensory tour at Regenstein African Journey. Tour facilitators pass around materials associated with the animals on display for a rich, tactile experience, and the building’s design is also ideal for the purpose.

“It has the most sensory features of any zoo building,” says Emma Martell, education manager for the zoo’s Hurvis Center for Learning Innovation and Collaboration. “A waterfall, spongy floors, ambient soundscapes, lots of vegetation—even the cool feel of glass.”

While the zoo has long made efforts to accommodate guests with special needs, the 25th anniversary of the Americans with Disabilities Act in 2015 provided extra incentive to do even more. For example, the zoo brought in a trainer to teach tour facilitators a heightened narrative technique that “paints a very vivid picture of the surrounding exhibits,” adds Martell.

Tours are limited to a maximum of 10 participants and can be requested by submitting an application form available at www.lpzoo.org/education/initiatives/sensory-tour.
Picturesque Pathway
The next time you stroll through Lincoln Park Zoo, consider its Continental roots. The zoo’s landscape design, dating back to its original conception in the 1860s, is modeled after Victorian-era European city parks. A recent restoration of the Main Mall, generously underwritten by Emily and John Alexander, pays subtle homage to that heritage with the creation of a formal yet relaxed allée bordered by two planter rows with perennial plants, elm trees and lampposts topped with globe-shaped fixtures.

The new pedestrian walkway, a contrast to the curving paths and gentle slopes north and south, gives the heart of the zoo a renewed sense of place and character. It prompts casual, unhurried strolls and signals to guests that they’ve stepped away from urban hustle and bustle into an tranquil oasis of natural beauty.

The allée also has a functional purpose: directing guests who enter through the East Gate toward the center of the zoo, where they can easily choose which animal exhibits they’d like to visit first.

The elms are key to the transformation. Previously sugar maples lined the Main Mall in tree circles that had confined their roots, inadvertently dwarfing them. Now a dozen “Princeton” American elms have been given more root space and the freedom to soar. Elms grow quickly, and these new trees will start forming their long-trunked vase silhouettes within 5–10 years. More impressively, in 15–20 years the two rows of trees will form a leafy canopy overhead, greeting guests with an enticing passageway that turns from green to gold in autumn.

The “Princeton” cultivar was chosen for its resistance to Dutch elm disease. The native perennials beneath—informally grouped and extending the entire lengths of the planters—were also selected for hardiness. All are part of an approved plant list painstakingly compiled over the past several years by zoo horticulturists.

Iris cultivars, “Blue Star” false aster, “Pink Cotton Candy” betony, “Pamina” Japanese anemone and “Lucerne” blue-eyed grass will provide vivid blooms and textural variety amid flowering, clump-forming ground cover like Siberian bugloss, “Stainless Steel” coral bells and dwarf goat’s beard. Ornamental onions also make an appearance, and hydrangea cultivars like “Blushing Bride Bigleaf” sport stems that retain their color through winter. The zoo’s gardeners are also planting hundreds of daffodils that will join the thousands planted elsewhere around the zoo—turning the zoo into a sea of cheerful yellow in early spring.
The redesign included the garden and stairwell on the west side of Wild Things gift shop. The narrowed staircase, flanked by a low brick wall and two urn planters, now features narrower steps, a handrail and a small, brick-paved terrace in the middle with a pair of facing benches. The lushly landscaped hillside—planted with herbaceous perennials similar to those on the Main Mall and specialty dwarf conifers like columnar Norway spruce and Tanyosho Japanese red pine—completes a project that began in 2014 with a small stream tumbling over rocks.

Seen from a distance, the garden redesign helps establish a uniform aesthetic with the Wild Things building and Main Mall. It's part of the complementary design that increasingly extends throughout all the zoo’s gardens. Urns planted with native perennials and colorful annuals also appear in the circle garden at Café Brauer’s entrance and along the garden path leading to the “Dream Lady” sculpture north of the Helen Brach Primate House. The latter two projects, completed in the last two years, are part of the same garden landscape master plan setting the zoo’s gardens up for success for years to come.

**Sculptural Season**

Permanent sculptures have long been an important element of the zoo’s gardens. But Nature in Motion: Sculpture at Lincoln Park Zoo—a contemporary sculpture show on display from May through October—demonstrated an emerging commitment to seasonal art exhibitions as well.

The 15 grandly scaled sculptures by 16 Chicago-area artists were carefully sited across the zoo. They ranged from Matt Csernansky’s minimalist, stainless-steel “Bird” near the Regenstein Birds of Prey Exhibit to Ruth Aizuss Migdal’s monumental bright-red female dancer, “Here,” positioned atop the Chilean flamingo habitat at the Waterfowl Lagoon.

Guests were treated to free sculpture tours led by trained guides from Friday–Sunday every week throughout the show’s run. And the artists themselves joined tour guides and guests on monthly Evening Sculpture Strolls, a paid-admission program that gave participants the opportunity to visit the zoo after hours.

If you missed the exhibition, you can still view the sculptures and learn about the artists at www.lpzoosculpture.org!
**A Solid Summer for Local Wildlife**

Summer is the season to get outdoors, hit the trail, maybe catch a meal al fresco and soak up a little sunshine. If you work for one of Lincoln Park Zoo’s wildlife recovery programs, you may do all of the above while helping to reintroduce Illinois species to their native homes.

This year’s reintroduction season began June 10 with the release of 11 ornate box turtles to the Thomson Sand Prairie and Lost Mound Sand Prairie near Savanna, Illinois. The turtles, which are threatened in the wild, hatched at the zoo and spent a year getting a “head start” under the care of our experts before release. It’s part of a partnership with the U.S. Fish and Wildlife Service that’s seen 49 turtles hatched at the zoo return to the wild. “We had 26 turtles hatch this summer between us and Brookfield Zoo, so we’ll be ready again for next year,” says Curator Diane Mulkerin, who helps manage the effort.

Another reptile species returned to the wild in July with the release of eight smooth green snakes to the McHenry County Conservation District. These vibrant insect eaters also hatched and grew at the zoo before starting a “soft release” in special sheds that let the snakes acclimate to their new homes before venturing fully into the wild in fall. To date, 68 smooth green snakes have been released to restored wild habitat thanks to zoo expertise. “Tracking these animals lets us discover vital information about smooth green snake survival, which we can use to help these populations thrive,” says Reintroduction Biologist Allison Sacerdote-Velat, Ph.D.

Finally, another state-endangered species is finding a refuge at Lincoln Park Zoo...although in the case of black-crowned night herons, the process is entirely natural. The birds have been building their noisy colonies in treetop stands in the park for nearly a decade, with their population increasing from 10 nesting pairs in 2007 to nearly 300 today. One notable colony location is above the red wolf habitat at the Pritzker Family Children’s Zoo, where visitors can hear juvenile black-crowned night herons rustling in the trees—and spot critically endangered red wolves trotting below.

**New Zoo Buildings**

Lincoln Park Zoo’s next great exhibits continue to take shape at the zoo’s north end, with the Walter Family Arctic Tundra and Robert and Mayari Pritzker Penguin Cove starting to rise during summer construction. The building’s frames are taking shape, with polar bear dens and penguin pools visible to those with expert eyes (or access to the blueprints). Both buildings are still on track for a fall 2016 opening—we look forward to sharing more details in our next issue.

**A Blast of a Bash**

On July 10, the Women’s Board of Lincoln Park Zoo held their elegant annual fundraiser, Zoo Ball, welcoming more than 850 distinguished guests to support Chicago’s free zoo. The evening event, chaired by Karen Eisenbart and Denise Stefan Ginascol, featured animal ice sculptures, delicious food, a richly appointed silent auction and drinks and dancing under a hypnotic “Aurora Borealis” backdrop. Zoo Ball: Arctic Blast raised more than $1.1 million to support continuing improvements at Lincoln Park Zoo, including the upcoming polar bear and penguin habitats and new education center.

**Head of the Class**

Lincoln Park Zoo’s commitment to the community and educating guests about the wonders of wildlife was boosted this summer with the arrival of our new vice president of education and community engagement, Dana Murphy. Murphy came to Chicago from Denver Zoo, where she’d served as the vice president for learning and guest engagement. Her new role will have her oversee the zoo’s thriving educational efforts, from introducing Chicago-area high schoolers to careers in science via research internships to welcoming the hundreds of thousands of students who come to the zoo for field trips every year. She will also strengthen ties between Chicago’s free zoo and visitors throughout the city, ensuring that Lincoln Park Zoo’s amazing animals and mission of conservation, education and care remain accessible to all.
Slow Ride, Take it Easy
The Hoffman’s two-toed sloth born July 25 at Regenstein Small Mammal-Reptile House isn’t independent of mom Hersey just yet. The growing infant, named Asyan, will likely continue clinging to Hersey’s abdomen for at least a few more months—the only time in the arboreal mammal’s life when it won’t be hanging upside-down.

Sloths, while famously slow-moving, mature quickly. At just a few weeks the baby was already showing interest in solid food. “We tend to spoil the sloths with a baby around,” says Curator Diane Mulkerin. “Both the female and her baby are hand-fed twice a day.”

Although sloths are nocturnal and seek seclusion while sleeping the day away, Hersey has a few favorite spots viewable to visitors, including a rocky ledge just south of the Ecosystem exhibit’s thatched-roof hut. “They use the entire exhibit,” says Mulkerin, “and Hersey is more active than sloths typically are.”

A Prideful Process
Forming a lion pride at a zoo is an unpredictable process—just as it is in the wild. Patience is a virtue for Animal Care staff managing ongoing introductions between 5-year-old male African lion Sahar and Zalika and Kamali, 2-year-old female sisters who moved here from Oregon Zoo last May.

“Peaks and valleys,” says Curator of Mammals Mark Kamhout. When the brief, daytime intros began in June, Sahar often chased the females, who fled from him. Then, on the morning of August 26, when Zalika and Kamali were resting in the outdoor yard’s moat, Sahar approached them. Instead of running away, the females stood their ground and stared him down. Sahar opted to lay down next to them, and the three relaxed comfortably together for more than an hour.

“That was encouraging,” says Kamhout. “We’ve had breakthroughs, but it doesn’t mean every day will be like that.”

A lot of that inconsistency has to do with the three cats’ youth. “Sahar is a very naïve, young male,” says Kamhout. “He’s more experienced than the girls, but they’re just 2, so that’s comparing apples to apples. They don’t quite know what to do.”

Not that the zoo’s former prides with late male Adelor and late females Myra and Helene were always one happy family. “Many people tend to remember them as lovey-dovey, everything-is-wonderful—and they were a good unit,” says Kamhout. “But Adelor would come in with little bites on his tail, or he’d try to breed Myra and she’d be ‘Oh, no, you don’t.’ And that’s how it is in the wild—constant fluidity with relationships, never completely stable.”

New Boys in Town
Regenstein Center for African Apes welcomed two new chimpanzees in late July. The adult males—Zachary, 28, and Patrick, 27—were born at Busch Gardens in 1986 and 1987 and lived together at another Florida zoo before moving to Chicago in a move overseen by the Chimpanzee Species Survival Plan.

The two currently reside in an off-exhibit habitat with indoor and outdoor living areas. Soon they will be introduced to adult females Kibali, Cookie and Migadi, who share another auxiliary habitat at the building. That delicate process will begin with visual-only “howdies” and progress toward a full, physical integration carefully monitored by caregivers and researchers.

“When unfamiliar animals meet for the first time, whether in the wild or in zoos, it can involve aggression,” says Steve Ross, Ph.D., director of the zoo’s Lester E. Fisher Center for the Study and Conservation of Apes. “But chimpanzees naturally live in social groups with multiple males and females, and it was important to find males to add to this group.”

Zachary and Patrick are settling in well, getting used to different types of foods and exploring their new home. “Eventually we hope to also conduct touch-screen cognition research with them,” says Ross. “Given their eagerness to interact with keepers and scientists, I expect they’ll be very interested in that.”

A Flamingo First
Adult Chilean flamingos are known for their colorful plumage, but hatchlings come out of the egg small, fuzzy and gray. You don’t need flashy feathers, though, when you’re the first flamingo chick in Lincoln Park Zoo’s history! That was the case for the new arrival that came out of the shell September 11. The little one and several chicks that followed are being hand reared behind the scenes; they will likely join the flock at the Waterfowl Lagoon in spring.
A Brilliant Holiday Season
Lincoln Park Zoo will glow again this winter, illuminated by ZooLights Presented by ComEd and PowerShares QQQ. The spectacular seasonal celebration will light up for the first time on Friday, November 27, shining Friday–Sunday until December 6 and then nightly from December 11 to January 3 (with the exception of December 24 and 25).

What’s new this year? How about extended hours! ZooLights will shine each evening from 4:30–9 p.m. The holiday highlights also include the glow of 2 million lights, complete with 3D displays and musical light shows as well as ice-carving demonstrations, hot chocolate and spiced wine, visits with Santa (through December 23) and colorful rides on the AT&T Endangered Species Carousel and Lionel Train Adventure.

The seasonal spectacle extends to several special events. Beer fans can join us December 2 for BrewLights Presented by Louis Glunz Beer, which features live music, free rides and rounds of tastings from local and national breweries. This adults-only event is a nice toast to holiday cheer.

Adults are also the focus at our Adults Night Out at ZooLights, which takes place December 10. Grown-up guests can leave the kids at home for the evening, pairing the glowing lights with tasty cocktails, animal activities and all kinds of holiday-themed fun.

Our annual Members-Only Night at ZooLights takes place December 3, offering our strongest supporters a chance to have the spectacle all to themselves. Finally, Ice Skating at Lincoln Park Zoo Presented by PowerShares QQQ will be good to glide at the Farm-in-the-Zoo starting November 27. Rent some skates, or bring your own, for a winter workout under the lights.

Visits with Santa and ice sculptures are among the highlights at ZooLights Presented by ComEd and PowerShares QQQ, which lights up November 27.
membership matters

ZooLights Glow, All for You
ZooLights Presented by ComEd and PowerShares QQQ is a highlight of Chicago’s winter calendar, a beloved chance for families and friends to get together to marvel at the brilliance of 2 million lights at Chicago’s free zoo.

Once again, members and their guests can have the spectacle all to themselves with our third annual Members-Only Night at ZooLights. The exclusive event lights up on Thursday, December 3, shining from 5–9 p.m. Beyond dancing lights and music displays, zoo supporters can also enjoy free Ice Skating Presented by PowerShares QQQ, free rides on the AT&T Endangered Species Carousel and Lionel Train Adventure and a 20 percent discount at Wild Things! gift shop (perfect timing for seasonal shopping).

The member appreciation doesn’t end in one night, of course. We’ll also have our cozy Members Lounge open most ZooLights nights. Join us in the Tadpole Room on the lower level of Park Place Café for hot chocolate, cookies and fun crafts for the kids. It’s a perfect respite before braving winter to see the thrill of Lincoln Park Zoo in lights. See the full Members Lounge schedule at www.lpzoo.org/memberevents.

A Members-Only Morning to Remember
On Saturday, August 29, members and their guests enjoyed exclusive access to the heart of the zoo with our latest Members-Only Morning. Attendees enjoyed seeing how zookeepers and animals such as black bears and African lions start their day.

The fun, free event featured games for kids, free rides on the Lionel Train Adventure and a full schedule of bonus animal enrichment. Despite the rainy conditions, guests raced one another in putting on a zookeeper’s equipment, built beaver dams at the Pritzker Family Children’s Zoo and enjoyed other exclusive activities.

It was a fun morning of insider info—and a big thank you for your support for Lincoln Park Zoo. Be sure to save the date for our next Members-Only Morning on April 23, 2016.

Don’t Miss a Zoo Minute
Want the latest updates on what’s new at Lincoln Park Zoo, from zoo babies to upcoming events? Follow along on your favorite platform—and let us know how we’re doing.

Don’t Forget Your Discounts!
A friendly reminder—having your member card handy when you visit Lincoln Park Zoo is a sure way to save. Lincoln Park Zoo members enjoy a range of discounts and special perks, including:

- 10% discount at zoo shops, Park Place Café and the Patio at Café Brauer
- 25% discount at Café at Wild Things
- 15% discount on education programs for children and adults
- 50% discount on stroller rentals

It’s just another way to show our appreciation for everything you do.
A Wild Gift for the Holidays
ADOPT red panda cubs Clark and Addison, lionesses Zalika and Kamali or an African penguin for loved ones this holiday! Our special holiday ADOPT features a cuddly plush (or two), personalized ADOPTion certificate and magnet-framed photo. The Holiday Experience ADOPT option adds vouchers for skate rental, ice time and hot chocolate at Ice Skating at Lincoln Park Zoo Presented by PowerShares QQQ. Visit www.lpzoo.org/ADOPT for details.

Ticket to Glide
Strap on your skates for Ice Skating at Lincoln Park Zoo Presented by PowerShares QQQ! From late November through February, our rink at the Farm-in-the-Zoo will welcome skaters of all ages. Admission and skate rental are just $5 each.