



The Crash

The newsletter for rhino professionals

IRKA

March 2011

Keeper Development Program: Becky Krywko, Saint Louis Zoo

The Saint Louis Zoo black rhinoceros program has been in existence for many years; we've housed 18 different black rhinos since 1938. In recent years, we have put a focus on developing a breeding program. We acquired 1.1 young black rhinos recommended for breeding by the AZA Black Rhino SSP. In 2009 they had a successful breeding and we were about to have our first black rhino calf in 20 years! We started to prepare for the birth and that's when I discovered information on the International Rhino Keepers Association Keeper Professional Development Program (IRKA KPDP). While we had full confidence in our preparations, we figured it wouldn't hurt to see what other successful black rhino programs were doing. I applied for the KPDP and was awarded a funding scholarship. We decided I would visit as many institutions as possible in a reasonable amount of time- 3 different facilities for 3 days each. Through the generosity and coordination of several institutions, I traveled the state of Ohio for a truly unforgettable experience.



INDIAN RHINOS STROLL THROUGH THE ROLLING HILLS OF THE WILDS together like a close knit family. They allowed me to observe some field captures and procedures and included me in the day-to-day routine. Their staff even went out of their way to schedule an impromptu visit to the Cleveland Metroparks Zoo (who only 2 weeks prior had a beautiful female black rhinoceros born).



Goh's taking a dip in one of the several lakes at The Wilds

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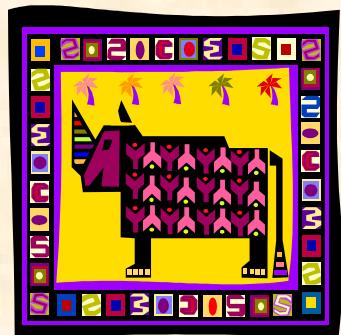
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DREAMING RHINO DREAMS:
DAVE JOHNSON, DENVER ZOO

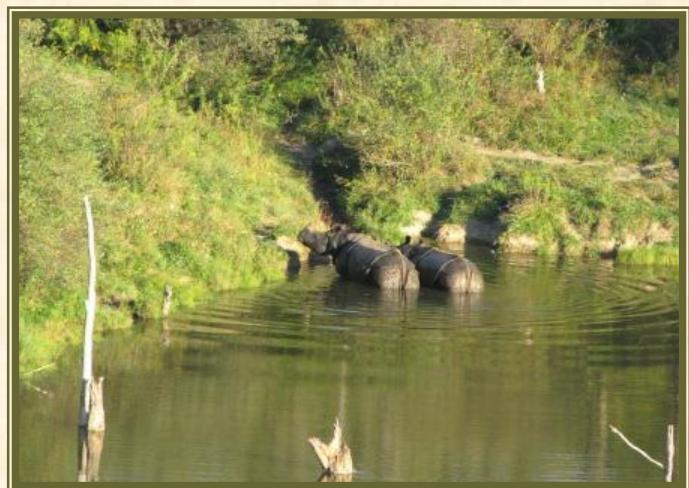
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My first stop was The Wilds in southeast Ohio. This facility is unlike any place I have visited before. Among many things, it houses a unique mix of ungulate species which live together in huge rolling pastures. The Wilds is so spacious that we would spend hours a day locating and evaluating their rhinos. There were even times that we would "lose" a rhino in the brush and have to come back later in the day to observe it! Their enthusiastic staff works





I had several up close experiences while at The Wilds which included meeting greater one-horned and white rhinoceroses face to face while out in the paddocks. I left there beaming every day. While at times it was difficult to compare their program with ours, I could not have had a better beginning to my travels than my time spent with the hospitable staff of The Wilds.



Next, I visited The Columbus Zoo and Aquarium. This program was the most similar to ours at the Saint Louis Zoo; they house black rhinoceros and Asian elephant breeding programs with an emphasis on daily training. The staff is well versed in black rhino care and had quite a depth of knowledge. While there, I quizzed them on all aspects of black rhino care and shared details of our program. I also worked beside them during their daily routine and observed several training sessions. Some of these sessions included black rhinoceros and Asian elephant blood draws, exercise sessions and even a brushing of rhino teeth! These sessions gave me fresh ideas on how to approach basic rhino care. I left Columbus feeling energized and ready to apply my newfound knowledge back in Saint Louis.

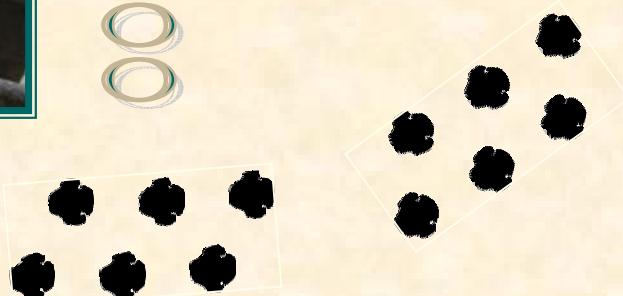


TOOTH CLEANING TRAINING WITH FEMALE BLACK RHINO

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KIJITO





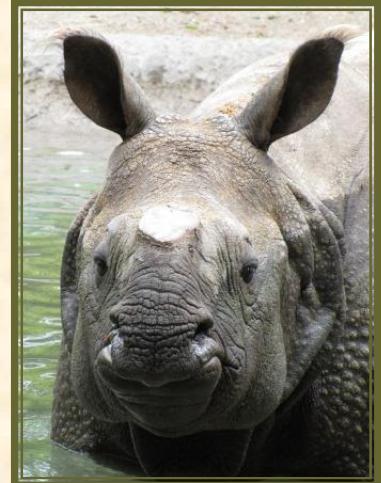
My last stop was the Cincinnati Zoo and Botanical Garden. This facility and staff amazed me at every turn. They have an older zoo (celebrating 135 years during my visit) but they have done a fantastic job renovating their aging barns. If something needed to be trained, it simply became part of their daily routine. I was able to observe a rectal ultrasound on a young greater one-horned rhinoceros which was used to track her ovulation down to the day. It was a lesson in vet and animal care staff cooperation to take steps to achieve a common goal: successful artificial insemination of this endangered species. The highlight of my trip was observing Sumatran rhinos for the first time in my professional career. What distinctive animals!! While at Cincinnati they also tailored my experience to include red river hog husbandry since I also care for that species in Saint Louis. The Cincinnati Zoo and Botanical Garden's rhinoceros program taught me to think outside the box, make the most of what you have and that most things are possible with a little planning.



SUCI

The IRKA KPDP was amazing! The institutions that I visited were excited to be involved in the program and shared all they could. I am grateful for each personalized experience. I am extremely thankful for the support of the Saint Louis Zoo at every level. This program helped mold me into a better keeper and enhanced the existing Saint Louis Zoo black rhinoceros program. On January 14, 2011 we celebrated the successful birth of a bouncing male black rhino. Thank you again for the generosity; the IRKA KPDP is a wonderful collaboration!!

Black rhino
Baby!!



NIKKI

Cincinnati Zoo
Cincinnati Zoo



RUKA



PHOTO CREDITS: BECKY KRYWKO AND KATIE PILGRAM



Lindner Center for Conservation and Research of Endangered Wildlife • Cincinnati Zoo & Botanical Garden

CREW ReView

Successful Science with a Sad Outcome

Lindner Center for Conservation and Research of Endangered Wildlife • Cincinnati Zoo & Botanical Garden

**NIKKI**

work resuscitating the newborn. As CPR was administered, the heartbeat became increasingly stronger. The staff simply refused to give up, and finally, after several injections of drugs from the veterinary team, the calf miraculously started to move ever so slightly. When the calf finally took an independent breath, the team cried out in joy, and spent the next few hours watching in awe as the calf made progress in baby steps. The next concern was getting nourishment into the calf's weakened body. Mother Nikki, true to form, cooperated beautifully while CREW staff and keepers collected milk into a bottle that could be offered to the calf until

strong enough to stand and nurse on his own. Unfortunately, that moment was never to come as the little guy became less active throughout the afternoon, finally undergoing cardiac arrest at 7:15 PM from which no amount of drugs or heroic acts could bring him back.

DR. MONICA STOOPS

out

ULTRASOUND IMAGES OF NIKKIS FETUS AT DAY 90 OF ITS 491 DAY GESTATION.



As with all CREW babies, years of research went into bringing this Indian rhino calf into the world. However, we have all learned over the years that even when the science is successful, the final outcome is often out of our control. For CREW scientist Dr. Monica Stoops and her team, such an outcome has unfortunately now been experienced twice. Four years ago, Nikki was the first rhino in the world to become pregnant following artificial insemination (AI) with frozen-thawed sperm. Sadly in January 2009, after completing a full term pregnancy, Nikki delivered a still-born calf. Approximately 50% of Indian rhinos that become first time mothers

over the age of 10, such as Nikki, experience a stillbirth. Despite the devastating outcome, CREW scientists were optimistic Nikki would become pregnant by AI again, and that this subsequent pregnancy would end with a successful live birth. It was not long before Dr. Stoops and her team attempted to repeat the successful AI procedure they had developed. Despite the fact Nikki exhibited estrous cycles during the year following the stillbirth, ultrasound exams revealed Nikki was not successfully ovulating. Without an egg released into the reproductive tract, Nikki had no chance of getting pregnant.



Therefore, in January 2009, Nikki was treated with hormones in an attempt to induce ovulation. The trial was successful in triggering ovulation and was repeated in two subsequent estrous cycles. Artificial insemination procedures were performed in conjunction with some of these trials, but Nikki failed to conceive. Then, in June 2009, Dr. Stoops and her team decided to again allow Nikki to ovulate on her own without hormone injections. A single AI procedure was conducted on June 24, 2009 and one day later Dr. Stoops verified Nikki had successfully ovulated. An ultrasound exam conducted 18 days later confirmed the presence of an embryonic vesicle in Nikki's uterus. Everyone was elated that Nikki was pregnant again! Not only did Nikki's second pregnancy prove the science of artificial insemination developed by CREW scientists was repeatable, but it also proved the fertility of frozen-thawed sperm from a second male Indian rhino by the name of Vinu. In 2005, CREW scientists collected and cryopreserved sperm from Vinu at the Bronx Zoo. Vinu's sperm remained frozen at -320°F in CREW's CryoBioBank until it was thawed four years later and used to inseminate Nikki. Despite the sad outcome with the death of the calf, CREW's ground-breaking AI research represents an important and new step in managing captive Indian rhinos. By producing offspring from non- or under-represented individuals, CREW can help to ensure a genetically healthy captive population of Indian rhinos exists in the future. Furthermore, CREW has demonstrated that assisted reproduction can be used for genetically matching rhino pairs instead of moving rhinos across the country, a primary goal of CREW's National Leadership Grant from the federal Institute of Museum and Library Services (IMLS). Despite this heartwrenching loss, CREW's science is sound, and we will persevere in our mission:

Saving Species With Science.

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STAFF RELAXES SLIGHTLY AFTER 117LB MALE CALF BREATHES ON HIS OWN FOLLOWING RESUSCITATION



Dreaming Rhino Dreams: Dave Johnson, Denver Zoo

The forest guide studied the sun-dappled floor, surveying the myriad tracks and trails at our feet. An hour passed as he searched for sign of the elusive animal we had trekked across the globe to see. We were atop the great gray back of an elephant in Chitwan National Park, the jewel of the Nepalese park system. My childhood dreams had become reality on that October morning in 2010. I had waited my whole life for this adventure. My giddiness elevated more with each sway from our pachyderm porter's methodical stride. Then ahead, in the shaded periphery of a jungle glade, was a mother Greater one-horned rhino and her two-month old calf. Our mahout grinned with pride as the cacophony of camera clicks echoed our good fortune. I felt a certain spiritual awakening seeing my first glimpse of a wild rhino in Nepal, and it filled me with professional pride for this career that I am so blessed to have.

I am a pachyderm keeper at the Denver Zoo. I have been working with animals since the age of fifteen, and the last thirteen years have been happily spent in Colorado. Although my work here is challenging and stimulating, the longer you work at one institution, the more time you have for self-reflection. I recently began to want to step outside of my comfort zone here at the zoo. Doing the husbandry work, talking to the public, creating demonstrations are all interesting parts of my job, but I wanted more. I wanted to challenge myself and try and make a difference, to make a positive impact in the lives of the animals, and the people that share their world. That is when I devised a game plan for a conservation strategy, and "Team Nepalorado" was born.

The word "Nepalorado" is a combination of my home state, and the beckoning country I had always wanted to explore, Nepal. This would be a fusion of cultures, in the name of conservation. The idea intrigued me. Could I make this work? Could I start something from scratch in a country that no one seemed interested in? I checked with our conservation biology team, and nobody had any ties to Nepal. It was an open arena for me to step into. The country also sheltered both the species of elephant and rhino that we would soon be housing here in Denver together. Asian Tropics is set to open next spring. This plan made sense to me. I had to find a way to get my foot in the Nepalese door. I got to work immediately making contacts, and started training. I had to endure five strenuous months of running to prepare myself for the first phase. I lost 25 pounds. I ran my first marathon in May of 2010. I took sponsorships and made a t-shirt design highlighted by our oldest female elephant here in Denver. It was called the "Mimi Marathon". This was the beginning of my fund-raising efforts. I got the incredible support of my zoo and the entire community. Word spread, and our AAZK Comedy Night matched my sponsors dollar for dollar. By the time October had rolled around I had met my goal of raising ten thousand dollars for this new project. We partnered with World Wildlife Fund, and Dr. Shubash Lohani. The plan was to purchase motorbikes for the anti-poaching units of Chitwan National Park. These would help them patrol the park, and lessen the poaching presence felt there. Chitwan loses an average of eleven rhino annually to poaching, and here is where we could make that difference.

The population of Greater one-horned rhinos is now listed at 2850 animals according to the latest WWF numbers. They are found in the southern parts of Nepal and northern India. They are still being hunted for their single horn that demands a heavy price in the Asian black market. Kathmandu, the capital of Nepal, is actually a hot spot for illegal animal trade. We would be traveling into the heart of the problem for



many species that are critically endangered in southern Asia. Chitwan provides a home for over 400 rhino, is a stronghold for the Bengal tiger, and has numerous elephant families wandering the protected hills and riverine forests. This seemed like a great place to start our cultural fusion.



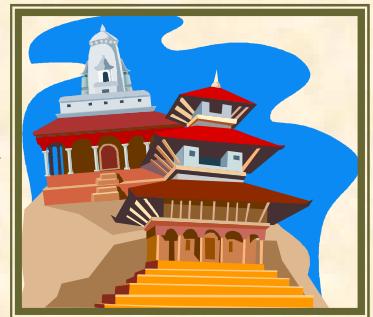


Team Nepalorodo 2010 was comprised of four Denver Zoo veterans. I brought one of our pachyderm keeper assistants, one long-time volunteer and elephant enthusiast, and her bird-loving husband. We traveled to Bardia and Chitwan National Parks and got to meet the park and World Wildlife Fund staff. We rode on an elephant-back anti-poaching sweep with their military patrols, getting to meet the very same individuals who would be using our motorbikes soon. They introduced us to two orphaned rhino calves who had lost their mothers in the monsoons. We sat down and spoke with the Chief Warden of Chitwan and watched his power point presentation on rhino population. Eleven rhinos were spotted in our two weeks, including seven at the fabulous resort of Tiger Tops. We ran from wild elephants twice, got leeches, rafted with gharials, danced with the local Tharu people, and watched in awe as a sunrise first kissed the tips of the Himalayas. Thirty wild elephant crossed a river right before our eyes, and an early morning

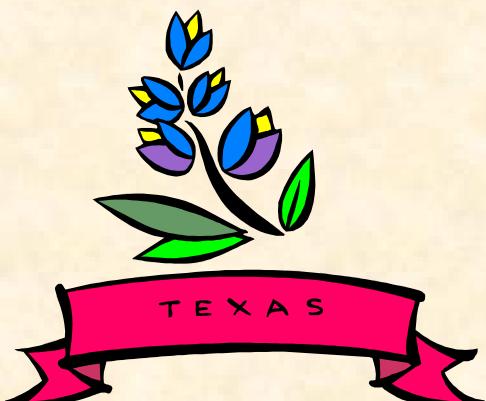
mountain flight let us see Mt. Everest in all of its' glory. Nepal gave me more than I had ever expected, and she continues to call to me, my Asian siren beckoning my return.

In the fall of 2011 we will make a return trip to Nepal and help with the construction of a solar-powered electric fence. This will greatly reduce the serious human/animal conflict around Chitwan. The one up in Barida is already showing great results. Elephant, rhino, and tiger continually clash with the local villagers over the dwindling natural resources. There were four elephant-related human fatalities during our trip, and one caused by a rhino. Team Nepalorodo looks to be twelve people strong this year, and will strengthen the cultural fusion between our two communities. In 2012, Asian Tropics opens here in Denver, and we will be displaying this awesome rhino

for the very first time. Nepalorodoans will now be equipped to secure a better world for animals through human understanding.



**HAVE YOU REGISTERED FOR THE
WORKSHOP?
DEADLINE IS MARCH 28TH!!
WE WILL SEE YOU IN TEXAS !!!**





Institutional Supporters

The Supporting Institutional Membership is for any conservation organization , or zoological institution which supports rhino conservation in accordance with the objectives and purpose of the IRKA. These memberships are available for \$100, \$500 and \$2000. Why should your zoo be interested in joining on this level? If your institution contributes on the \$500 level then all rhino keepers membership fees at your zoo are waived! It is important that as the IRKA grows that we continue to garner the support from all facilities that are responsible for the protection and management of all species of rhinoceros. We would like to extend our appreciation for this substantial support to the following institutions, and hopefully we can add your zoo to this growing list! If you have questions about institutional memberships or any other questions please contact us at

internationalrhinokeeperassoc@gmail.com.

Partners

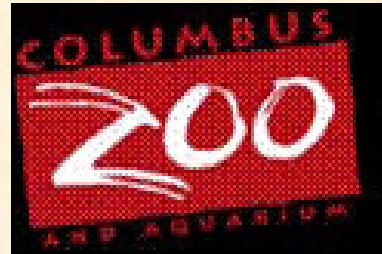


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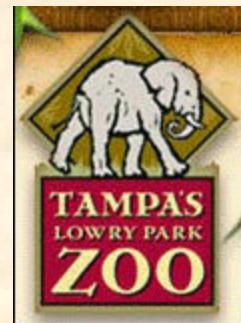
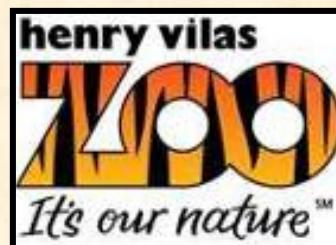
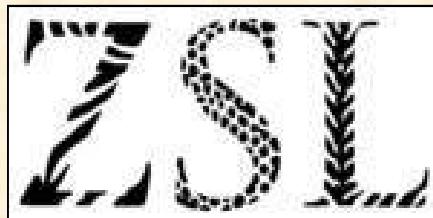
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