

The Rhinoceros Exchange:

GIVE AND TAKE IN CONSERVATION

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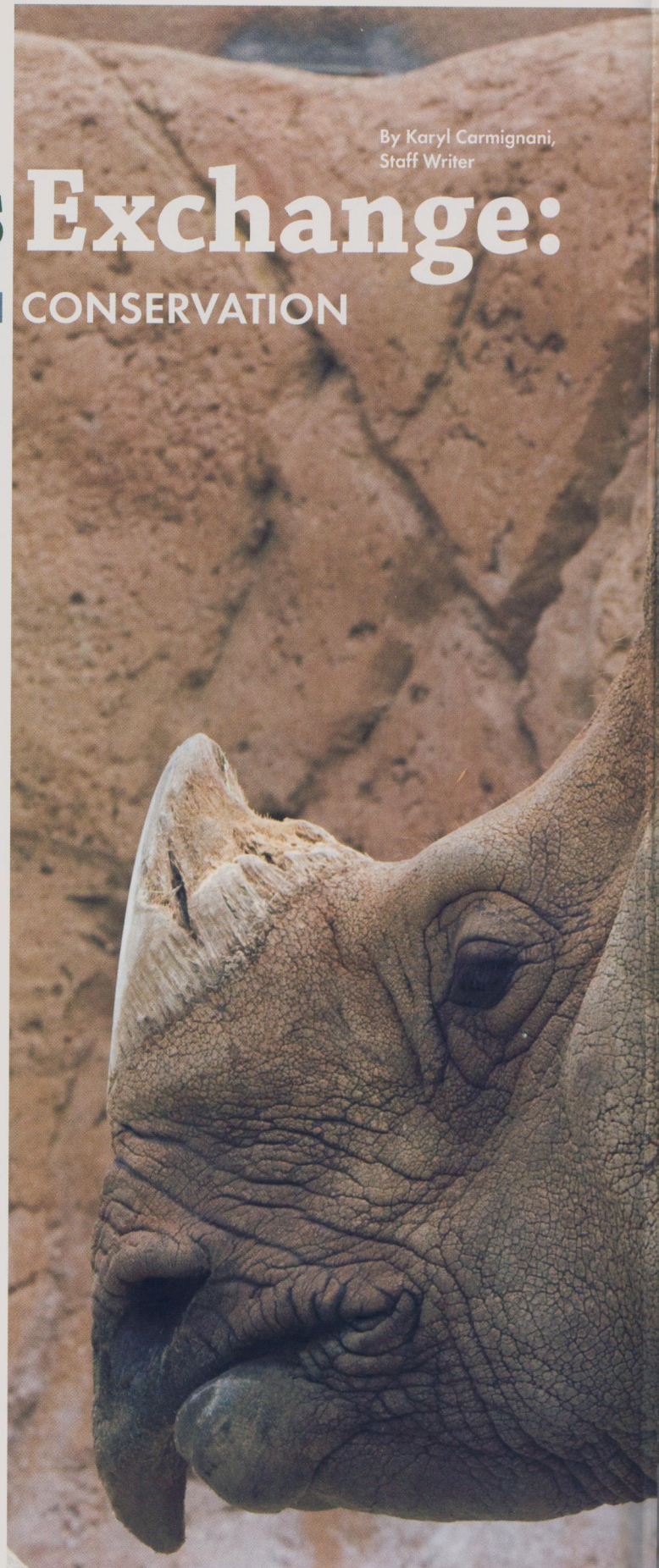
Imagine planning and packing for a week-long sojourn to India, only to be met with endless delays, vexing bureaucracy, soaring temperatures, voracious insects, spine-rattling roads, and nasty illness—all with three Indian rhinoceroses *Rhinoceros unicornis* in tow. So it went for two of the San Diego Zoo's conservation-minded staff, Randy Rieches, Wild Animal Park curator of mammals, and Andy Blue, Wild Animal Park animal care manager. India's rhino population was skewed toward males, while zoos in the U.S. had not had a new bloodline for years. The plan was to swap three female rhinos from the Wild Animal Park for three male rhinos from India in order to enhance the respective gene pools in the two locations. Operation Rhino Exchange was planned to take seven days.

"This was the most challenging animal transport in my 30 years of animal care," said Rieches. "We were fortunate that it was successful, as it will really benefit the Indian rhino breeding programs in the U.S. and India, but it was fraught with obstacles. Thankfully, all the animals came through the journey well and are adapting to their new environments."



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ABOVE: Indian rhinos are carefully crated, then monitored for 24 hours before starting their journey. RIGHT: The rhino's horn is made of keratin, like hair and fingernails, and is unfortunately the reason that poachers kill these animals. Thick folds in their skin give them an armored appearance.







Rhinos on the Road

How do you prepare three Indian rhinos for a trip back to their homeland? Fortunately, it does not entail a need for *Sanskrit for Dummies* but instead relies on patience and trust (and treats!). To ensure the animals' safety and comfort, crate training is a must. Blue spent more than a month working with the traveling trio to get them familiar with and com-

fortable in their "first-class accommodations." The crates were cool and quiet, with the promise of apples or hay. The calf took to this new arrangement quickly—as long as Blue went in the crate first! However, the older females were a bit more skeptical and took longer to train. Blue also spent time hand-feeding them in the crates while teaching them to drink from a hose, which would prove useful on the long, hot journey.

Twenty-four hours before departure, the animals went into their crates. This prudent part of the plan enables veterinarians and keepers to monitor the animals and make sure the crates are secure. At first light, the convoy headed to the Los Angeles International Airport to catch a cargo plane to India.

secure the necessary permits—essentially passports for rhinos—and thousands of dollars for the animals' transportation and food. During a 24-hour layover in Singapore, Rieches and Blue frequently sprayed the animals with water to keep them cool, since it was 114 degrees Fahrenheit in the hangar. Finally, the cargo plane once again lifted off for Delhi. During the flight, they repeatedly checked on their charges, climbing down a ladder into the holding area, toting a container of oxygen in case the aircraft lost pressure, and offered the animals food, water, and reassurance.

Once in India, the animals were unloaded. One female was headed to the Delhi Zoo, while the other two rhinos were destined for Sanjay Gandhi Biological Park in Patna, India, which required another cargo plane ride. Unfortunately, Rieches and Blue discovered, to their dismay, that the "freight forwarder" had neglected to get the appropriate permissions. Without them, the aircraft for the final leg of the



Buckle up! Transporting large animals by plane requires securing them in the cargo hold and reassuring them throughout the journey.

Best-Laid Plans

A successful animal transport project requires months, if not years, of preparation. In this case, it took eight months to

Beyond botox: Rhino skin is thick but still vulnerable to sunburn and insect bites. Rolling in mud keeps their skin healthy, if not wrinkle-free. The folds in their skin help keep the animal cool by increasing surface area and providing built-in shade.

journey was not permitted into Indian airspace. Such a delay would be annoying enough with a few checked bags, but with two hot, restless rhinos, the situation was dire.

Quick Thinking

How long will the plane be delayed? Should we take the rhinos to the zoo, let them stretch for a day or so, then hope we can lure them back into their crates? Or will the plane be here in an hour, and we should be patient and keep the animals crated? These were just some of the thoughts racing through Rieches and Blue's heads. It was a definite dilemma. In the end, they decided to give the rhinos a much-deserved break at the zoo and retrain them to enter the crates when the plane finally arrived. As it turned

out, that was a good decision—it took several days for the plane to get clearance.

Now well behind schedule, Rieches and Blue breathed a sigh of relief when the Russian cargo plane finally arrived. The rhinos were eventually lured back into their crates and trucked to the tarmac. Aircraft personnel were snoozing under the plane—they did not have passports and could not leave the airport. The rhinos were hoisted onto the plane, which was as hot and stuffy as an attic in August. Rieches started throwing five-gallon buckets of water on the rhinos to keep them cool. The Russian pilot said that probably wasn't the best idea, since all the electrical wiring for the plane was under the now-soaked floor.

Young rhinos can be preyed upon by tigers in India, so they stick close to their mothers for protection. At the Wild Animal Park, 56 calves have been born since 1972; the Park has the most successful zoo Indian rhino breeding program in the world.

The next-best cooling system was altitude, so Rieches suggested they fly to 8,000 feet to cool off the animals. Windows open, back door gaping, the plane lumbered to an altitude comfortable for everyone. Patna or bust!

All's Well that Ends Well

It ended up taking more than a month, rather than the seven days originally scheduled, but Operation Rhino Exchange was successful for both India and the U.S.—and the animals. Our thanks go to the International Rhino Foundation and a private conservationist for their support of this rhino exchange, as well as to the Wild Animal Park keepers for all their efforts. In spite of the harrowing challenges, this swap of Indian rhinos was a much-needed boost for the genetic diversity of rhinos both here and abroad.

As part of the Species Survival Plan for these animals, the Wild Animal Park has successfully bred more Indian rhinos than any other facility in the world: 56 calves have been born since the program's inception in 1972. Now with three new males in the mix, we are hoping for further reproductive success. It may have been a wild ride, but seizing this opportunity and seeing it through will improve Indian rhino populations for generations to come. 🍷

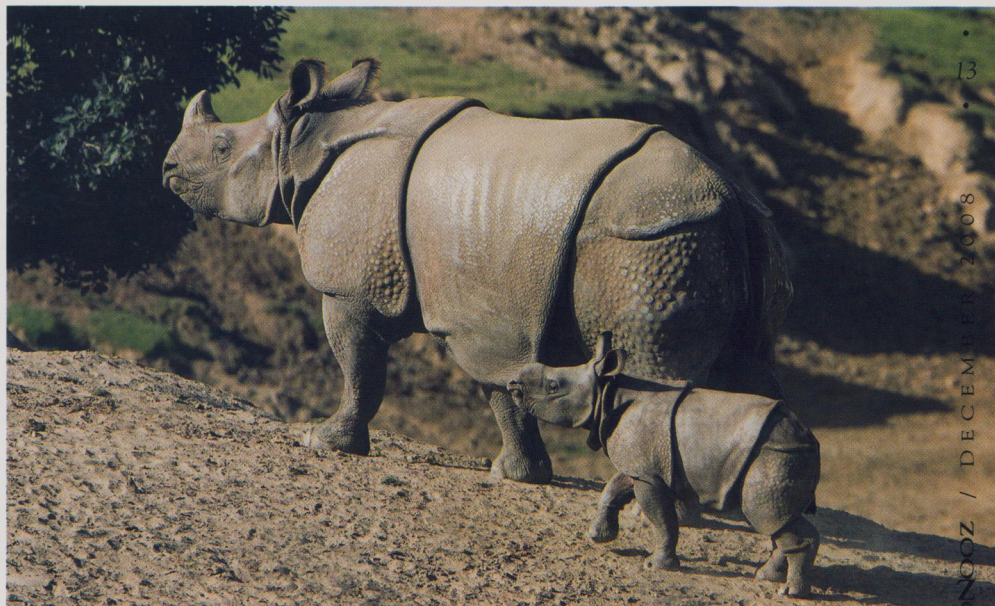
RHINO REVIEW

There are five living rhino species, two in Africa and three in Asia, and all are endangered. The Indian, or greater one-horned, rhino has the most notable appearance: deep skin folds strategically positioned on its hide give it an armored, tank-like look. Native to the swampy floodplains of northeast India and Nepal, it is an excellent swimmer and ardent mud wallower. Its species name *unicornis* refers to the single horn on its snout, which can reach 24 inches in length. (Javan rhinos are also uni-horned, while other rhino species sport two horns.)

Rhino horn is made of compressed keratin, just like hair, hooves, and fingernails. Unfortunately, rhinos are still aggressively poached for their horns, which are used in Chinese medicine and in handles for daggers called *jambias* in Yemen. Rhino horn can fetch more than \$13,000 per pound on the black market.

Historically, Indian rhinos roamed the floodplains and grasslands of northern Pakistan, much of northern India, Nepal, northern Bangladesh, Bhutan, and Myanmar. Due to burgeoning human populations that are converting prime rhino habitat into farmland and other developments, the rhino's present range is a fraction of its historical glory. Eradicating malaria from certain areas has also enabled human settlements to occupy habitat previously left to wildlife.

Indian rhino numbers dipped to about 200 at the turn of the century, but now more than 2,500 survive in 13 populations distributed between Assam and Nepal.



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