

IRKA Board of Directors Welcomes.....

I am honored to be the newest elected board member of the International Rhino Keeper Association. It is very exciting to have the opportunity to work with many dedicated and passionate people in this professional organization. I had the chance to meet many members of the IRKA, but I hope to meet many more of you while I serve my term on the BOD. As I serve my term, I would like to help every member get as much as possible out of this organization as they would like. There is a great deal of knowledge among the membership to share and learn from each other to benefit the rhinos under our care. The duties I will be working on as a BOD member is continuing the training committee, serving on the scholarship committee, and helping with the Keeper Development Program. I encourage everyone to take advantage of all the opportunities that the IRKA has to offer! I look forward to working with all of you and hope to see you at the Rhino Keeper Workshop in Chester!

Joe Hauser
Buffalo Zoo



Joe and his new little GOH "Monica"!

Transabdominal and Transrectal Ultrasound Training in a Chute

Joe Hauser, Buffalo Zoo

Performing an ultrasound on a rhino has many benefits. By performing an ultrasound on a rhino, one can see reproductive organs, as well as other organs and structures. A transrectal ultrasound on a female rhino allows one to view the uterus, ovaries, follicles, fetus, cysts, bladder, kidneys, and corpus luteal structures on an ovary. Through a transrectal ultrasound on a male rhino, one can view the kidneys and the accessory sex glands, which include the bulbourethral gland, prostate, and seminal vesicles. By performing an ultrasound on the outside of the body, one can view the male's testicles.

At the Buffalo Zoo, we trained our one female Indian rhino to prepare her for both transrectal and transabdominal ultrasounds, so that we could monitor her during pregnancy. To do so, we trained her to be comfortably restrained in a rhino chute system for both types of ultrasounds. We chose to perform the ultrasound in the rhino chute because we had already trained the rhinos in the chute for other veterinary procedures. We chose to train the rhino for the transrectal ultrasound first. We did so because the transrectal ultrasound is the only means in which the fetus is viewable during the first stage of gestation, which lasts approximately 100 to 110 days.

During the process to train the rhino in the chute for the ultrasounds, two keepers were involved in every training session. We kept the first sessions very short (length of approximately 5 minutes) and then gradually increased the time of the sessions. The rhino entered the chute by being targeted by the first keeper, who worked the rhino at its head. Then, the second keeper closed the door behind the rhino and slowly restrained the rhino with the hydraulic gate. The first keeper, at the rhino's head, used continuous reinforcement during the session, while the second keeper stood behind the rhino and touched its tail. We continued these sessions until the rhino had no reaction to its tail being touched. Then, we proceeded to lift the rhino's tail and touch the outside of the rhino's rectum with a gloved hand. For safety reasons, we opened a bar on the hydraulic gate to gain more access to the rear end of the rhino and placed a diagonal chain on the gate to prevent the rhino from shifting to one side of the chute and injuring the keeper's arm. We had the rhino get used to the sound of a chain and moving bars while in the chute. Once she was trained to be safely positioned in the chute, we started to slowly enter the rectum of the rhino with a lubed and gloved hand. Starting off small, the keeper only inserted his hand in the rhino's rectum with a glove and an all-purpose, non-spermicidal lubricant. Meanwhile, the first keeper, at the rhino's head, continued to use continuous reinforcement. At this point, the training sessions were still approximately 5 minutes. We only proceeded further with the training once the rhino was comfortable at each current step. Very slowly, we increased the depth that we inserted our arm into the rhino's rectum, going all the way up to our shoulder. Once the rhino was consistently comfortable with the keeper inserting their arm all the way up to their shoulder, we started increasing the duration of the session, ultimately reaching approximately 20 minutes long.



Trans rectal training

When the keepers arm was inside the rhino's rectum, he made a fist with his hand and moved it around to mimic the feeling of an ultrasound probe. Then, the last step was to introduce the actual probe. Most rectal ultrasound probes are no bigger than the size of a human fist, so we did not see any reaction from the rhino when we inserted the probe. When the probe was inserted, the keeper placed his hand around the probe and then moved it around inside of the rhino. It is important to note that whoever is doing the ultrasound should always take precautions and be careful to not damage anything on the inside of the rhino's rectum. I recommend consulting with the veterinarian at your institution during the training process.

Once our rhino was further into gestation, we started transabdominal ultrasounds. This process is less invasive and much easier to train. We continued training with the same two keepers involved, one at rhino's head and the other working around the rhino. Since the skin on the rhino is so thick, the only area where the ultrasound beam penetrates deep enough is the mammary gland.

Once our rhino was further into gestation, we started transabdominal ultrasounds. This process is less invasive and much easier to train. We continued training with the same two keepers involved, one at rhino's head and the other working around the rhino. Since the skin on the rhino is so thick, the only area where the ultrasound beam penetrates deep enough is the mammary gland.

Our female rhino entered the chute and was targeted by the first keeper. Then, the second keeper knelt on the side of the rhino and touched around the rear legs and the mammary gland. The rhino became used to this process relatively quickly. In the next step, we placed some lubricant on the mammary gland of the rhino and the second keeper moved his hand around on the mammary gland to mimic an ultrasound probe. Finally, we introduced the actual ultrasound probe and started doing the transabdominal ultrasound. As with the transrectal ultrasound, we continued transabdominal ultrasound sessions until the sessions lasted 20 minutes.

During the training process, the same two keepers should be involved in the training to provide the rhino with consistency until the behavior is fully trained. Once the rhino is fully trained, I recommend that the keepers/veterinarians/researchers rotate, so that the rhino gets used to different individuals performing the ultrasounds.



Transabdominal examination

2015 Conservation Calendar Update



In 2014, we sold out of 600 Rhino Conservation Calendars in 12 weeks! The IRKA has produced the Rhino Conservation Calendar for three years now and we have raised close to \$30,000, all of which went directly to rhino conservation projects! The funds raised from the sale of the 2015 Rhino Conservation Calendar will go towards the resources needed for the Javan Rhino Conservation Program's Rhino Protection Units (RPU) and the removal of the invasive Arenga palm. It is estimated that there are fewer than 50 Javan rhinos remaining in one population in the Ujung Kulon National Park (UKNP), Java's largest remaining low-land forest tract. The population is thought to be stable, but unlikely to grow without intervention as the UKNP is probably at carrying capacity.

The RPU are highly trained anti-poaching teams that intensively patrol key areas within areas containing rhinos. RPU deactivate traps and snares and apprehend illegal intruders, including poachers, and investigate crime scenes, thus preventing or reducing the loss of wildlife. RPU patrols have proven to be a successful deterrent to rhino poaching as there have been no reported rhino poaching deaths in UKNP for the past 15 years. An invasive palm (*Arenga obtusifolia*) is rampant in UKNP, and if not controlled, will continue to reduce the growth of Javan rhino food plants and have further serious impacts on plant and animal diversity in the park. An estimated 60% (18,000 hectare) of the Park is covered with Arenga palm. The UKNP currently manages a number of plots, no more than 5 contiguous hectares, to reduce Arenga palm and after the removal is completed, staff closely monitors plant density and distribution in the plots.

The UKNP does not have the resources to adequately fund proactive measures to prevent harm to its diverse, at-peril biodiversity. As human populations increase and threats from illegal activities, such as poaching and encroachment grow, the protection provided by the RPU and trained locals remain crucial for the survival of Indonesian fauna and their habitat.

Calendars on sale now for \$27 each (free shipping domestic and international)

Go to www.internationalrhinokeeperassociation.org to order yours NOW!

