Proceedings of the 20th National Conference of the American Association of Zoo Keepers, Inc.

AAZK

ATLANTA

Atlanta, Georgia
October 10 - 14, 1993

Workshops

Poster Presentations

Rhino Training

By
Matthew Edmonds
Lowry Park Zoo, Tampa, FL

(Edityor's Note: Matt Edmonds presented a workshop on Rhino Training at the Atlanta Conference. This article, reprinted from the October 1993 issue of Animal Keepers' Forum, details the procedures he used in this training.)

The following is an overview of a project that lasted nine months. I won't attempt to describe every behavior taught to the animal or go into too much detail about training methods.

Introduction

Working with an animal that weighs 4,500 lbs., and that is as agile as anything on four legs, presents an interesting problem when it comes to management and health care. At the Lowry Park Zoo in Tampa, FL, I worked with such an animal - an Indian rhinoceros (*Rhinoceros unicornis*). Jorhat, or Jordie as he is called, is an extremely impressive animal. He stands just over six feet at the shoulders, and over eleven feet long, with a girth just under twelve feet. As most keepers know, anesthetizing such a large animal can be fatal for the patient. Taking such chances for yearly physicals and to treat injuries seems foolish when the same results can be accomplished without anesthesia and with the animal's permission.

With a small investment in time, and an even smaller monetary investment, a training program can be implemented to teach a rhino to accept routine veterinary care, and keepers' wishes to shift yards. All that is needed to begin the training is a chute (Fig. 1), a target (Fig. 2), and a dog whistle. With three 10-minute training sessions a day, these tools can elevate the level of care a priceless animal receives.

Training

While an adult Indian rhino has nothing to fear from any animal except man, they still maintain a herbivore mentality. They are always on guard and wary of new things and people. This doesn't alter the training much, but new tasks and new equipment must be introduced slowly, and extra time taken while they become less suspicious of the changes. The type of training I used on Jordie is called target training, which is the same type used on dolphins and whales and is a positive reinforcement-based system. To begin the process, Jordie was taught to touch the target with his nose. When he touched the target, the whistle or bridge was given. The whistle acts to bridge the correct behavior to the reward, a piece of fruit. Once Jordie learned that the whistle meant that he had done something right and he would get a fruit reward, he would remember what he had done and had learned the behavior.

The target could then be used to move Jordie wherever I wanted him. This simple behavior meant that I could shift him anywhere in his enclosure and gave me control over simple management.

New behaviors are taught slowly, but steadily, building on progress already made. The steady introduction of new materials keeps the animal interested and thinking. Perhaps the most difficult new "behavior" to teach was trust. Entering the chute, a very confined space, with me

standing there took some getting used to. Over time though, he not only entered the chute, but did so eagerly to start the training session.

Now that he was comfortable in the chute, and with being touched in the chute, his whole body was within easy reach to do whatever was needed. This opened the door for drawing blood, administering medications, giving vaccinations, taking body measurements, and making physical observations. All that was left was to get him used to having each one of these procedures done. This was accomplished by slowing desensitizing him to each one.

Accomplishments

After six months of three, 10-minute sessions a day, Jordie had learned quite a few beneficial behaviors. He will now stand in the cute while his entire body is covered with a skin conditioner. Before, it had to be brushed on with a deck brush that had an extended pole that measured about nine feet. With the pole there were obvious spots that were missed, a hand towel works much better.

Before the training Jordie had never had a blood sample taken and he had been at the zoo over four years. With the training, he calmly stands still in the chute while blood is drawn from the radial vein on the front leg. All this is voluntary and done without anesthesia or local numbing and, if he wishes, he may leave the chute. He would rather stay though and be rewarded with hay and fruit chunks. Regular blood samples have obvious benefits in health care and research.

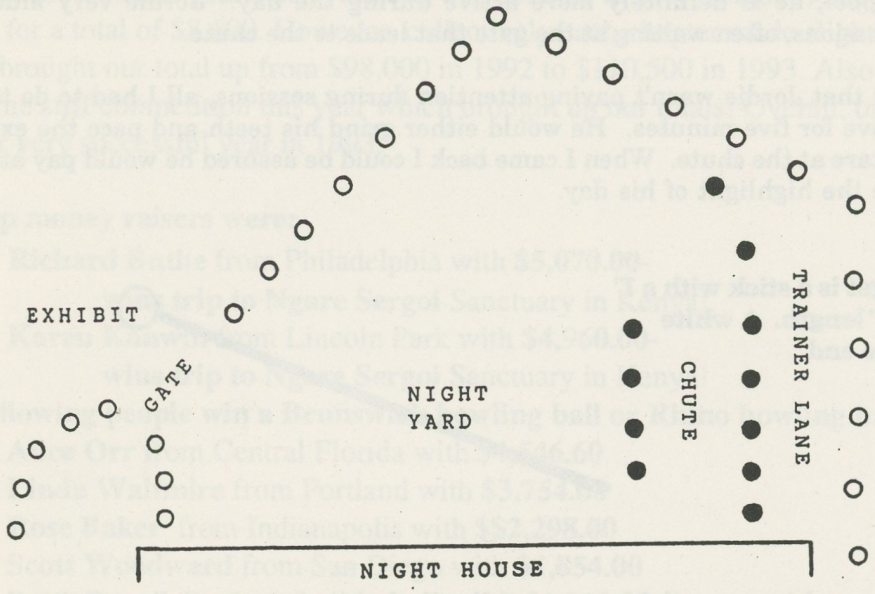


figure 1 ○ = already existing pressure treated poles
● = pressure treated poles added to create chute

While in the chute Jordie is also available for physical measurements. While he is basically full grown, girth measurements were charted to watch for weight loss or gain. Height and length measurements were also easily obtained.

For medical reasons, the weight of an animal is very important to know. Although Jordie has never been weighed, he had been taught to walk into the chute and step up onto a simulated scale made of thick planks of wood covered by a sheet of 3/4" plywood. Now if it is desired, he can be safely and accurately weighed.

Sterile urine samples can now be collected from Jordie when he is healthy. Before he was comfortable in the chute, urine samples could only be obtained by putting a bag in his nighthouse drain.

In early 1993, one of Jordie's upper incisors erupted in his mouth. With the close daily contact that the training provides, it could be noted on his medical records. Now we know, that with this animal at least, it takes an Indian rhino about ten years to complete dentition.

As far as daily health care, the training allows more complete treatment of any minor injury, preventing it from becoming a larger problem. Being sub-tropical, Florida is warm enough for flies to be a concern year-round. With Jordie calming standing in the chute, small cuts can be kept clean and clear of fly eggs.

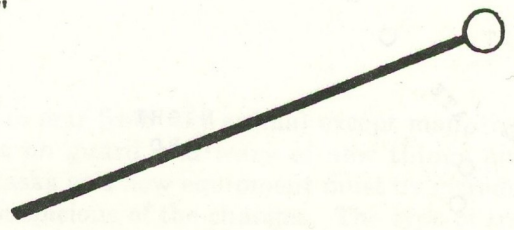
Enrichment

One benefit to behavioral training is the mental stimulation it provides an animal. Rhinos can be very difficult to provide with enrichment since they can destroy almost anything. Tree stumps are usually safe, but not much fun.

Within one month of the training program's inception, Jordie was a much more active animal and consequently his appetite also increased, While he still spends much of the day soaking in a mud hole or in his pool, he is definitely more active during the day. Jordie very much looks forward to training sessions, often waiting at the gate that leads to the chute.

On the few occasions that Jordie wasn't paying attention during sessions, all I had to do to regain his attention was leave for five minutes. He would either grind his teeth and pace the exhibit, or grind his teeth and stare at the chute. When I came back I could be assured he would pay attention - training sessions are the highlight of his day.

Figure 2: The target is a stick with a 1" diameter and a 2 1/2" length. A white ball is attached on the end.



Conclusion

With fewer and fewer rhinos available to contribute their genes to their species, artificial insemination may play a major role in their future. This would allow a male rhino in an Asian or African zoo to sire a calf in the United States. While semen collection wasn't attempted here, it did seem possible, and is one area that needs to be explored in more depth.

Even without such long-term goals, having better control over management and health care may be enough reason to start such a project.

Acknowledgments

I would like to thank Edmund Gerstein, a Zoological/Behavioral consultant, whose many hours of assistance and numerous ideas and suggestions were vital to the project's success.