

## **Preparing 0.1 Southern White Rhino for a Dental Procedure**

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By the end of winter 2020, keepers noticed that Abby, a Southern White Rhino, had a sharp tooth on the top left side of her mouth. She was eating normally but her left eye was watery. A decision was made by keepers and vet staff to anesthetize to take care of it. There is a rhino barn all rhinos are used to going to, but this area was deemed not easily accessible for all involved; keepers, vet staff, and ASAR (animal search and rescue).

The annex is a separate barn, with three paddocks, currently housing retired 0.1 rhino, Olivia. The space has what is called the "Sandrock paddock" that has horizontal cables and plenty of space to maneuver large equipment. There are two main issues:

1. Abby has never been to the annex before
2. Bonnie, another 0.1 Southern White Rhino, has an attachment to Abby and separating the two may be difficult, as white rhinos operate in herd bonds.

Keepers had to not only train Abby rhino to leave the comfort of her 40 acre habitat and her small herd, but they had to train Bonnie to remain calm with Abby's absence. With operant conditioning, keepers not only trained Abby to enter the annex by herself, but to enter a chute to put on a sling and received the injection, then walk out into the Sandrock paddock for the procedure.

# Training 0.1 Southern White Rhino for a Dental Procedure

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Abby

**Abby** is a 16-year-old southern white rhino at the North Carolina Zoo. In December 2020, keepers noticed that her left eye was watering and her breath smelled unusual. After investigating, a sharp tooth was found on the top left side of her mouth. To properly take care of it, it was decided that she should be anesthetized.



Abby's Tooth

Abby weighs 5,660 pounds, so staff required help from Animal Search and Rescue. ASAR has a mobile tripod hoist capable of lifting Abby from a sling in the case she went down in an undesirable location. (Abby is already trained to wear this sling.) The challenge became where

this procedure would take place. The rhino barn is too cramped and there is not space for all of the people and equipment needed for the procedure. The annex retirement barn, however, has a sandrock paddock that is spacious and mostly flat.

## The next problem is twofold:

1. Abby has never been to the annex
2. She is part of a group including 0.3 other southern white rhinos, (Natalie, Nandi, and Bonnie,) that have a close bond. Bonnie has an attachment to Abby, so keepers had to ensure she was calm once Abby is out of sight during the procedure and recovery.



Dr. Mike Lowder



Abby in her sling

## Training Methods: (need 4+ keepers)

- Bring 0.4 moms and calves into our holding boma so keeper(s) can focus on Natalie, Nandi, and Bonnie.
- Keep 0.3 rhinos focused on keepers at the fence with food, (alfalfa, orchard grass, timothy cubes,) and attention.
- One keeper navigates the truck, one sits at the back the truck, and a third is at the annex chute ready to receive Abby.
- Keeper in the back of the truck is equipped with a target stick and treats to lure Abby.
- Once Abby is secure in the chute, 0.7 rhinos are led away with orchard grass hay towards opposite end of the habitat, keeping Bonnie busy with food and her other companions.
- Abby is led from chute to the barn into another chute where a sling is put on.
- Abby walks out into the sandrock paddock with the sling on and line up against the fence for injection.



View from the annex chute

## Results:

**Abby** was brought to the annex the day before her procedure for fasting overnight. Morning of, we lined her up in the chute and she allowed keepers to put on her sling without a problem.



ASAR had requested we add extra straps they had brought to help with the weight load, Abby was mostly ok with the additional straps but due to her size, the carabiners clinked against the bars of the chute and made her nervous. In the end, she did not stand for the injection. She was darted in a stall and let out into the sandrock paddock, where she went down and keepers and staff helping with the ASAR equipment were able to get in and get her lifted and adjusted into position with relative ease. Bonnie was calm and hanging out with her other companions on habitat.

\***Abby** was too tense to open her jaw and due to complications, vets made the call to wake her, she was released from the equipment and all materials were taken out of the paddock within minutes. Abby is healthy and happy. Despite the result not being preferred, her training made the entire process much easier for everyone involved.



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