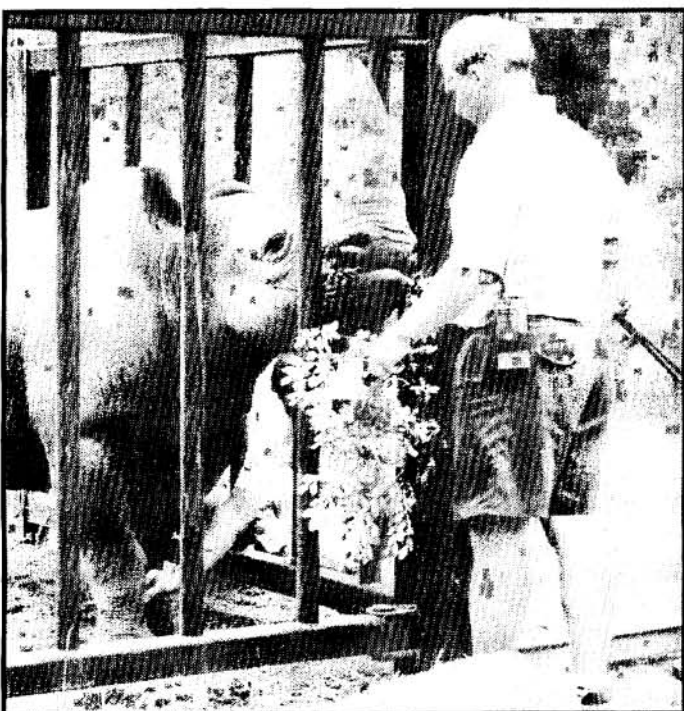


# Health Management of Black and White Rhinoceros Through Conditioning and Positive Reinforcement

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The health management of captive rhinos is often difficult and challenging. Simple medical procedures, such as blood collection, often require tranquilization or immobilization to accomplish. A sick rhino is often a diagnostic nightmare since even simple diagnostic procedures may require placing an already compromised animal at risk through chemical restraint.



Lead Keeper, Lonnie McCaskill, positions the black rhinoceros, "Thombi," for blood collection by staff veterinarian, Scott Citino.

Through positive reinforcement, keeper staff have been successful in conditioning several black and white rhinos at White Oak Conservation Center to submit to blood collection, tuberculin testing, vaccination, treatment of minor injuries, and other minor medical procedures without the use of chemical or mechanical restraint. Keepers achieved this by using preferred food items and tactile contact to gain the trust and confidence of the rhino. During conditioning, keepers feed small amounts of alfalfa or browse while simultaneously touching the rhino in areas where blood is collected (i.e., leg or ear). More than one keeper participates in the conditioning process to prevent the rhino from becoming nervous or uncomfortable around unfamiliar people or groups of people. As a result of this conditioning process, the rhino responds positively to keeper and veterinary staff, making

simple veterinary procedures less stressful for both animal and staff.

The black rhino suffers from numerous health problems in captivity, so preventive health screening is especially important in this species. The conditioning process allows veterinary staff to routinely collect blood samples to assess health and to detect problems early on. The ability to collect bio-samples non-invasively from our rhinos will continue to allow important research to be accomplished in the areas of rhino nutrition, blood cell physiology, stress physiology, reproductive physiology, pharmacology, anesthesia, and health assessment.



Blood collection by needle placement in a branch of the radial vein of the front leg of a black rhinoceros.