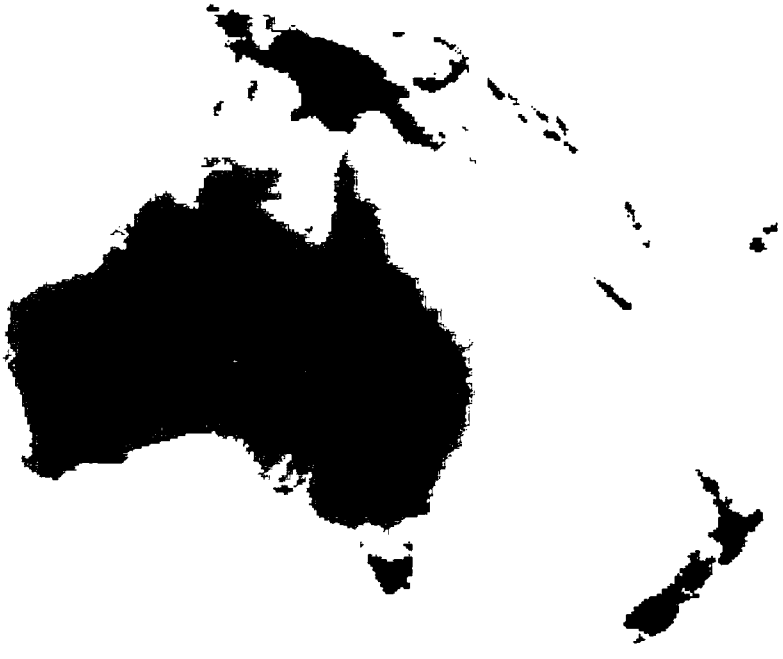
# thylacinus



A publication of the
Australasian Society of Zoo Keeping

Vol.32 no.4 2008

# Sustainability Within Zoos: Taking The Rhino By The Horn

Susan Gordon, Auckland Zoo

## Introduction

Sustainability can be described as a mechanism for managing and replenishing finite resources. Careful management and regional breeding programs are methods through which zoos can contribute to the sustainability of captive animal populations. However, the details, initiatives and behind the scenes work that go into making such programs a success should not be underestimated.

Auckland Zoo does its utmost to maintain sustainable populations in captivity. This is facilitated through Auckland Zoo being part of ARAZPA and working closely with other zoos to ensure sustainable populations are kept.

For polygamous species the management of males is problematic and an obstacle to sustainability. While a single adult male/ multi adult female group is arguably the most natural and stable herd structure for white rhinos, species managers need to develop strategies for housing the extra males that cannot be accommodated at zoos with breeding groups because rhino (like most other mammals) have a roughly equal sex ratio at birth.

In consultation with Auckland and Hamilton Zoos, the ARAZPA species coordinator for white rhino, Samantha Kudewah, decided that the regional rhino program would best be served by Auckland Zoo holding a bachelor herd of rhinos, whilst Hamilton Zoo focused on breeding the white rhino, as they already held a herd of females. The initiative was seen as being vital to the captive breeding program of this species. In order for Hamilton to be successful in breeding and to maximise their space, it was decided that only one male should be held there. This required Auckland Zoo relocating one of their males to Hamilton Zoo and receiving three males from Hamilton in return.These regional management recommendations were implemented in May 2007. As neither zoo had the capacity to house all the males at once, the transfers between Auckland and Hamilton Zoos had to take place simultaneously.

This paper will focus on the practicalities and challenges faced in achieving the transfer as well as the solutions and alterations required in integrating and coordinating a bachelor herd of rhinos. Auckland Zoo has had to be adaptive and innovative in enabling this process to occur successfully while minimizing the stress on the herd.

## Background

Prior to the transfer, Auckland Zoo housed two male rhino separately. Kruger, a 19 year old male, originally from the Kruger National Park in Southern Africa. By transferring Kruger down to Hamilton he would have the opportunity to breed for the first time in New Zealand. This is important as he represents a new bloodline for rhino in New Zealand. The other male, Mandhla, was to stay at Auckland. Mandhla's (27) eyesight failed in 11/11/2006, 6 months before the scheduled transfer. Great uncertainty surrounded the issue of how a blind rhino would cope with three new residents.

Hamilton Zoo held three males; Zambezi and his two sons Inkosi (5 years) and Mtoto (3 years). Hamilton also held four females one of which being Zambeszi's offspring.

Holding a bachelor herd of rhino, in a relatively confined space, such as an urban zoo is relatively rare and hasn't been extensively trialled in zoos around the world. Working in the favour of a successful herd was the fact that these three individuals had grown up together and have always known one another, as well as having no female rhinos present.

Significant modifications to Auckland Zoo's holding areas were made prior to the transfer taking place. This included the installation of two extra hydraulic doors in the raceway, this enabled the areas to be safer and gave the keepers more options for the movement of animals, including making a loop between the house and bull yard which would prevent animals being cornered. The rhino containment barrier was also raised in parts of the exhibit.

## Transfer

Leading up to the transfer Kruger was crate trained in the bull yard. Kruger responded very well to the training, coming in promptly and target training well. The day before the transfer, Kruger and the three Hamilton males were injected with a long acting sedative in order to relax them for the two hour journey between Auckland and Hamilton. The four rhinos were transported in seperate metal crates, which were hoisted onto trucks. The Hamilton rhinos travelled in convoy up to Auckland. On the Auckland side, five keepers were involved in the crating of Kruger. The transfer itself went according to plan and all the crate training paid off, apart from Kruger getting a fright when the poles behind him slid into place. This caused him to panic, where he tried to back out of the crate. He soon calmed down and lay down while the crate was hoisted onto the truck.

Communication between the two zoos was imperative, especially during the transfer of the rhinos. Kruger from Auckland Zoo was only crated once the three rhino at

Hamilton had successfully been crated. This reduced the time Kruger would have to spend in the crate and also ensured that if the crating process had failed at Hamilton Zoo, and the transfer needed to be rescheduled, there would be no unnecessary stress on Kruger. A staff member from each zoo accompanied the rhinos during the transfer and was present during the settling-in process.

Once the three male rhinos arrived at Auckland, they were off-loaded one at a time into the bullyard. All three of the rhino from Hamilton Zoo spent the night in the house together, although Zambezi was separated from Inkosi and Mtoto, however visual access was given.

### Post-transfer management

After two days, the three new males were let out into the exhibit for the first time by themselves, for a few hours. Each day after that, the time they spent in the exhibit increased. This gradual process of building up the amount of time spent in the enclosure served the purpose of reducing the level of stress on the Rhinos created by the new environment.

At Hamilton Zoo the rhinos had no interaction with any other species but the rhino exhibit at Auckland Zoo is a mixed species exhibit which includes six springbok. The rhino were first integrated with the springbok on their third day out on exhibit, which gave the rhinos a couple of days by themselves to become familiar with their new environment.

An important part of managing all the rhino at Auckland was ongoing monitoring of the zoo's original blind rhino, Mandhla. With the arrival of the new residents, Mandhla's behaviour changed, he started displaying dominant behaviours, but at the same time appeared to be on edge, and was occasionally seen pacing.

Managing Mandhala' health required that keepers enter the enclosure with the animal present.This required great care from keepers who had to be alert at all times. A specific protocol was developed to manage this process to ensure the health and safety of staff. Ten days after the arrival of the Hamilton males, Mandhla became irritable and charged one of the keepers. Mandhla was always kept separate from the three Hamilton rhino. Mandhla and the three males were rotated a few times a day in order for them to have an equal amount of time in the exhibit, as well as the separate holding areas. Unfortunately, during the year prior to the transfer, Mandhla's health had deteriorated significantly. As well as becoming blind he suffered from incontinence. Two months after the arrival of the males from Hamilton Mandhla suffered from a prolapsed penis, and was subsequently euthanased. It was at this time that the three ex-Hamilton males had to be housed in the exhibit overnight for the first time.

### Conclusion

From a personal perspective, I had only been working on the Pridelands section for two months. The unique challenges discussed above posed great challenges for me. We did encounter some difficulties moving Rhinos between enclosures but staff at the zoo learnt from these initial problems and implemented protocols and stringent training processes to ensure both the well being of the animals and the safety of keepers.

Today, Zambezi has settled in well and is more relaxed. The two younger males are very responsive to the keepers and their eagerness to approach keepers is utilised during behind-the-scenes tours, where the public can have a close up encounter with a rhino. All three males are now routinely housed together overnight, with having full access to both the house and exhibit. Upskilling of the staff has been a success and keepers have formed strong bonds with these animals The keepers at Auckland have been working hard implementing a new crush training program as part of animal management. We have been successful in training all 3 males, they are now excellent at target training as well as performing foot lifts and mouth opens when required.

At Hamilton Zoo, Kruger has been observed mating with one of the females, indicating the transfer will be a success for both zoos.

Auckland Zoo has faced many challenges in undertaking this project aimed at improving the viability of the captive rhino population in Australasia. Such challenges have led to specific techniques and adaptations in both the physical environment and zoo processes. The adaptations made and processes developed have resulted in a higher quality lifestyle for Auckland Zoos new rhino bachelor herd.

*This paper was presented at the ASZK Annual Conference in Sydney May 2008*