

NORTH LUANGWA BLACK RHINO REINTRODUCTION UPDATE – May 2007



Subilo, 2 March 07

Summary

Five black rhinos were successfully introduced into North Luangwa National Park (NLNP), Zambia, in 2003, and the first calf was born in early 2005. Last year, the reintroduction project was given a significant boost with the arrival and release of an additional ten individuals into a new fenced sanctuary. The subsequent loss of one of the females, Lina, due to natural causes, was offset by the birth of a calf to Julila, who arrived from Kruger National Park already pregnant. Most of the new rhinos lost some condition following release and through the dry season - as was the case in the earlier re-introduction - and all were monitored closely as a result. Rhino condition generally stabilized as the rainy season progressed. However, at the end of February, Chikuse's behaviour became a source of concern. Sadly, she died on the 10th of March, with the probable cause of death being clinical trypanosomiasis, brought on by maladaptation. Two months later, the spoor of another new calf, the second to be born and bred in North Luangwa, was reported in the old sanctuary by the rhino monitoring scouts. The total number of animals now stands at 16.

Preparations are already being made for a third and final translocation, to bring Zambia's founder population to the recommended number of at least 20 unrelated animals, thereby maximizing its chances of success in the long term. Successful negotiations with wildlife authorities in Namibia and South Africa have led to agreements with the Namibian Ministry of Environment and Tourism and the South Africa National Parks Board, North West Parks Board, and the Eastern Cape Parks Board. These agreements will result in 12 additional black rhino being destined for North Luangwa in May 2008.

Introduction

In our last full update of 30th January, four months ago, we informed you in detail about:

- (1) The condition and monitoring of the rhinos through the wet season, and the failing of their transmitters, somewhat earlier than expected;
- (2) The birth of a calf to Julila, the cow that arrived already pregnant from Kruger National Park;
- (3) The splitting of the North sanctuary into two in preparation for a third reintroduction of rhinos next year;
- (4) The installing of a scout observation post on the Muchinga escarpment, overlooking the northernmost sanctuary.

Rhino condition and population monitoring

Chikuse

Although the condition of most of the rhinos had stabilised, and in some cases began to improve during the rainy season, albeit more slowly than expected, one exception was Chikuse. Formerly Sukani, a four year old female from the Eastern Cape, Chikuse never strayed far from the release site. She was often seen at the airstrip, close to the road going from the airstrip to Nakawele gate, and the road from the bomas to the old sanctuary. She became used to the movement of vehicles and the presence of people and was not easily disturbed. This is unusual for a black rhino, which naturally gravitate

away from people and noise, but not too surprising considering her age and the close contact she had with people in the bomas and after release. It did, however, make it a little difficult to evaluate her health, as behaviour is an important measure of a rhino's well being.

In late February, Chikuse was seen to be particularly unresponsive, even for her, in the presence of people and vehicles, and by 4 March it was evident that she was not well. Although her general body condition was fair (about 3/5) her behaviour was a source of concern. She spent much time standing listlessly with her head held low, and sleeping close to the road. This apathetic state seemed more pronounced in the afternoons. At other times, she appeared reasonably normal. For example, on 6 March she was followed for an hour in the early morning and was browsing well. However, she was not cutting the branches cleanly, tearing and chewing them instead. She was also bothered by flies and ticks and did not kick her dung. She had some small, crusty sores inside both ears and behind her right knee. Her skin, especially along her spine, appeared dry and rough.

Clinical symptoms

Dr. Pete Morkel and a number of other wildlife veterinarians and trypanosomiasis experts were contacted for their advice. The general consensus was that she probably had clinical trypanosomiasis and that it would be best to treat her. Dr. Ian Parsons was going to come up from Mazabuka to do this. However, there were certain logistical problems and risks that had to be considered. It was the height of the wet season and there was a great deal of water in the veld; immobilization would be risky. The wet conditions would also make it difficult to recover her and take her back to the bomas. Our plan, therefore, was to lure her back into the bomas where immobilization would be much safer and where she could be kept and helped back into good condition. With this in mind we tried for several days to feed her *Euphorbia ingens* branches in the field, but the stratagem was not successful.

On the morning of 10 March, two monitoring scouts reported having found her stumbling in the bushes near the bomas. They mentioned that she was circling and falling repeatedly. At roughly 10am Chikuse fell and failed to get up again. She died at 10:40 am.

Post Mortem findings

The post mortem was carried out by a state veterinarian Dr. Harry Mundia from Mpika. The important findings were:

1. On external examination her body condition was about 3/5.
2. She had a high number of ticks, especially in the perineal area.
3. One of her deciduous teeth (right maxilla) was rotten.
4. The right prescapular lymph node in her neck was enlarged – probably because of the rotten tooth;
5. She had large numbers of nematodes in the caecum and colon. There were also numerous immature bot fly larvae (*Gyrostigma parvesii*) in the stomach; these had obviously been acquired since she had been translocated to North Luangwa.

Cause of death

From the history, clinical symptoms, and pathology, Chikuse appears to have died from trypanosomiasis. Towards the end, there was probably central nervous system (CNS) involvement.

Chikuse's main problem was that she struggled to adapt to her new environment. She was young and insecure and had moved from very rich black rhino Valley Bushveld habitat in the Eastern Cape to very different habitat in North Luangwa. Her struggle to adapt to the environment resulted in a loss of condition, chronic stress, and a depressed immune system. The latter made her vulnerable to parasites and infectious agents and she finally developed clinical trypanosomiasis.

Twashuka

Chikuse's rapid deterioration and death were unexpected. Before the rhinos were introduced, 160 pyrethroid-treated tsetse targets had been placed in key locations in the new sanctuary and the density was highest in the vicinity of the bomas, the release site, from which Chikuse never moved far. Targets have been treated and acetone attracting agent replenished every month since release. The trypanosome challenge would therefore have been low. Prior to release, the rhinos were also injected with Trypanidium - Samorin (2 % solution of isometamidium chloride given intramuscularly at 1 ml/40 kg), giving two to four months prophylaxis against trypanosomiasis. Clearly, however, Chikuse's inability to adapt to her new environment made her susceptible to tryps. This gave us reason for concern for some of the other rhinos, who might be undergoing the same process. A concerted effort was therefore made to carefully observe the behaviour of these individuals. One female, Twashuka, began to be seen more frequently in the area of the bomas and on one occasion actually walked into a pen. When we observed her in the field the following morning, the 2nd of April, we noticed that she did not cut branches of browse cleanly, even ones of small diameter. She heard us and watched us, head quite low, then after five minutes she lay down.

Although this was not much to go on, we decided that the symptoms were too similar to Chikuse's and that Dr. Ian Parsons should be called in without delay. On the 5th of April, Twashuka was darted and treated with Samorin, long-acting antibiotics, and Dectomax against parasites. The operation was a success and she was observed in the field a few days later by Dr. Pete Morkel, having recovered fully and browsing well.

One other female, Buntungwa, appeared to be having some difficulty maintaining body condition, so she was watched closely, once a week, for one month. During this time, her behaviour and habits were found to be completely normal and she appeared to be healthy. Because she is an extremely alert animal, the intensive monitoring did cause some disturbance, so, having been reassured that all was well, we have resumed the standard monitoring schedule, of aiming to sight her once every three weeks.



Buntungwa, 6 May 07

All the remaining rhinos appear to be doing well. In the meantime, an additional 100 tsetse targets are being made, for placement along streams in areas of the sanctuary where the rhino monitoring scouts have reported a presence of tsetse flies.

Second calf born and bred in North Luangwa!

We are delighted to report the birth of a calf in the south ('old') sanctuary. This is the third black rhino birth on Zambian soil and the second born and bred in North Luangwa.

On the 9th of May, we received a message that three ZAWA rhino monitoring officers had found the spoor of a small rhino, while on patrol. Shortly after hearing the report, Jessica accompanied the rhino monitoring scouts to the site where the spoor was found to take photos. We have not yet attempted to see the calf, wishing not to disturb them.

The calf will be named in due course by schoolchildren inhabiting the neighbouring Mukungule Game Management Area: a naming competition will be organized as part of the NLCP Environmental Education Programme. We will keep you informed of the calf's progress!

Rhino monitoring scouts travel to Zimbabwe

In April, seven ZAWA rhino monitoring officers, half of the rhino monitoring team, traveled to the Bubiana Conservancy for a training course generously facilitated by the SADC Regional Programme for Rhino Conservation. This in recognition of their hard work and dedicated service since black rhinos were first introduced in May 2003, and also as an opportunity to brush up on skills and observe rhino monitoring methods elsewhere. Natasha Anderson kindly organized and led the 5-day course, and the

officers were accompanied by ZAWA Ranger, Andrew Chomba. The training was much appreciated by the officers, and it is hoped that this initiative can be repeated with the second half of the monitoring team in due course.

Acknowledgements

The reintroduction of black rhinos into North Luangwa National Park is an international conservation initiative between the Governments of Zambia and South Africa, under the umbrella of the SADC Regional Rhino Programme. Implementing organizations include ZAWA, South African National Parks, the South African North West Parks and Eastern Cape Parks Boards, Frankfurt Zoological Society's North Luangwa Conservation Programme, and Frankfurt Zoo. Main financial support for the programme has been provided by Conservation Foundation Zambia, the US Fish and Wildlife Service, Save the Rhino Trust Zambia, the Beit Trust, David Back, the Prince Bernhard Fund for Nature, the European Association of Zoos and Aquaria, Save the Rhino International, and the Frankfurt Zoological Society. All rhinos so far were donated by South Africa, making the project a truly historic, regional, and cooperative conservation effort between two countries and four conservation agencies.

Finally, the reintroduction has been made possible by the hard work of many individuals and we would like to take this opportunity to thank all of you personally for the important roles you have played. It has been, and will continue to be, very much a team effort.

Kind regards,

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North Luangwa National Park, 30 May

NB. The table below gives the old and new names of each rhino:

Old name	New name
Dubula	Twashuka
Sukani	Chikuse
Nature	Chilenje
Bonani	Kango
Kate	Buntungwa
Scarface	Subilo
Tshenolo	Kondobole
Big Mama	Julila
Baba	Twikatane