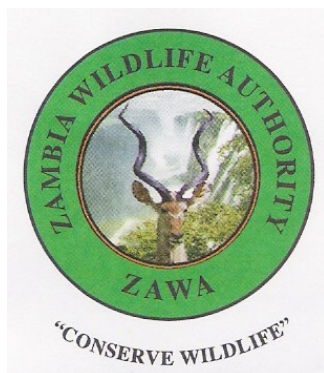


# RE-ESTABLISHMENT OF BLACK RHINO IN ZAMBIA - NORTH LUANGWA NATIONAL PARK -



March 2006

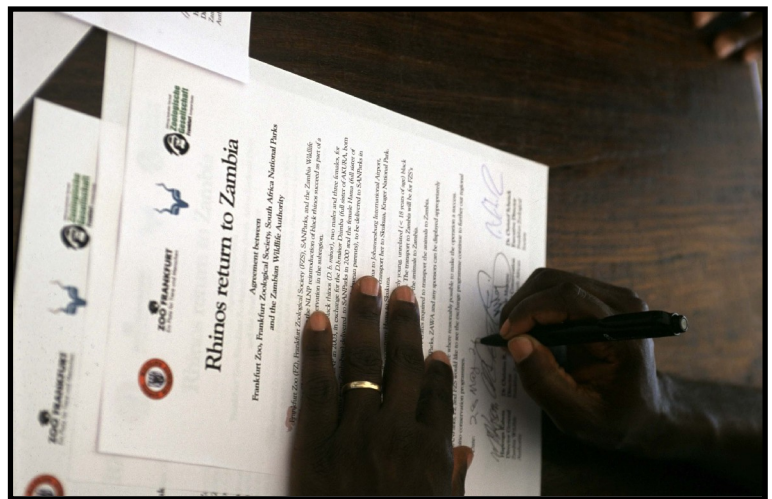


## RE-ESTABLISHMENT OF BLACK RHINO, *Diceros bicornis minor*, in Zambia - North Luangwa National Park -

**Goal:** The re-establishment of a viable, breeding, free-ranging population of black rhino in North Luangwa National Park – for the enhanced conservation status of the species and improved ecological integrity of the area.

**Background:** Historically Zambia was one of the major range states for the black rhino (*Diceros bicornis minor*). As late as 1980 Zambia was still listed as the country with the 3rd largest black rhino population. At the time though the country's wildlife estate suffered from heavy poaching pressure, and by the end of that decade very few sightings of black rhino were still reported. In 1998 the animals were declared 'presumed nationally extinct' in Zambia (Brooks and Emslie 1999).

A joint project by the Zambia Wildlife Authority and the Frankfurt Zoological Society's North Luangwa Conservation Project – with the support of the SADC Regional Programme for Rhino Conservation - led to the reintroduction of 5 black rhino into a 55 km<sup>2</sup> fenced sanctuary in North Luangwa National Park, and in effect to Zambia, in May 2003. The 5 animals, (2 males and 3 females), were a donation from South African National Parks. This reintroduction was only the first step towards the target of bringing a minimum of 20 founder animals to Zambia within a 3-year period. The Zambia national rhino strategy, adopted in 2005, also makes it clear that before any further rhino are brought to any other Park or sanctuary in Zambia, that all rhinos will be placed in the North Luangwa sanctuary until at least the target founder population number has been reached.



The animals have adapted well to their new surroundings – and this statement is supported by the birth and subsequent survival of a baby rhino in May 2005. Throughout this time there has been no immediate threat to their safety.

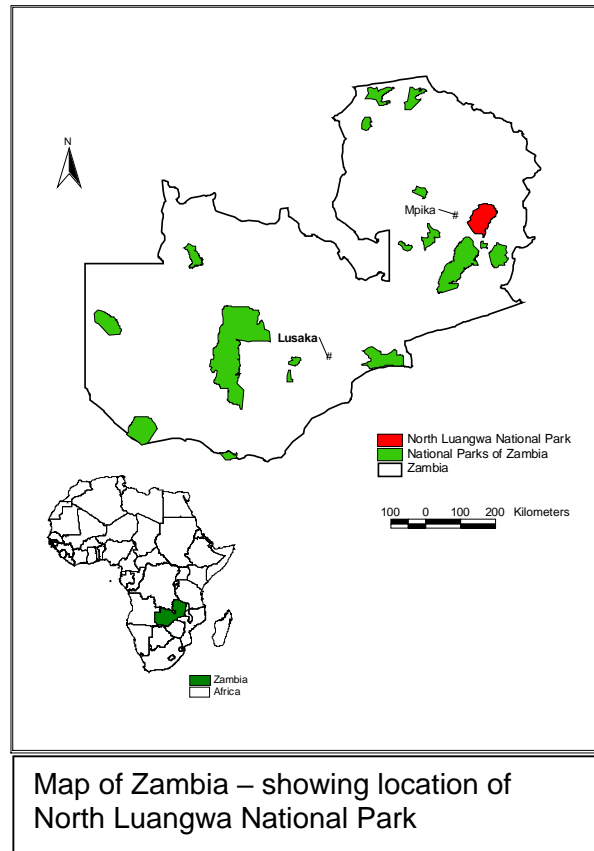
### Key steps in the North Luangwa reintroduction:

- **Feb. 2001** – First draft of ZAWA/NLCP proposal to reintroduce black rhino circulated
- **Aug. 2001** – SADC Regional Programme for Rhino Conservation undertakes viability assessment of reintroduction of black rhino in Zambia, and finds North Luangwa to be suitable and the most viable place for such a reintroduction at this time. Recommend that IUCN guidelines of a minimum founder population of 20 animals should be adopted.
- **2002** – Construction of 37 km of electrified fence to enclose 55 km<sup>2</sup> of suitable habitat in a safe, central location in North Luangwa, as well as construction of 6 bomas.
- **Early 2003** – Recruitment of additional 30 security personnel, and 10-week training programme for dedicated rhino security team, house-building project.
- **May 2003** – 5 black rhino arrive in North Luangwa from South Africa, and are released after a short boma stay into the larger sanctuary
- **2004** – Additional recruitment of staff, more training, construction of houses.
- **June 2005** – Confirmation of birth of calf to Natwange
- **2005** – Clearing and construction of a further 40 km of fence to enclose 147 km<sup>2</sup> for new sanctuary to house additional animals. Construction of 18 new bomas completed.

**Geographic location:** North Luangwa National Park covers an area of 4 636 km<sup>2</sup> and is situated in the mid- to upper Luangwa Valley in north-eastern Zambia, between 11°25' S to 12°20'S and 31°45'E to 32°40'. It is a Park with high topographical diversity, and associated high biodiversity. The Luangwa River forms its eastern boundary, lying at approximately 600 m a.s.l., and the western boundary falls within the Muchinga escarpment, with the highest point in the Park at 1 372 metres.

### Rhino in North Luangwa -

**historical overview:** The Luangwa Valley was seen as the stronghold of the black rhino in Zambia in the 1960's (Ansell 1969). It was estimated that North Luangwa National Park alone harboured between 500 and 2 000 animals, (Caughley 1973), before the onset of the poaching wave in the 1970's and 1980's. The Park was designated as a wilderness area and few wildlife scouts were stationed around the Park or entered it to do patrols during that time. This meant that its wildlife populations were particularly vulnerable, and the last confirmed sighting of a black rhino in North Luangwa was in the mid-1980s.



Map of Zambia – showing location of North Luangwa National Park

The North Luangwa Conservation Project was initiated in 1986, and has always had as its goal the support and strengthening of the local wildlife authority to enable it to effectively manage and conserve the Park, and the Game Management areas which surround it. It is a project of the Frankfurt Zoological Society, which has signed long-term management support agreements with the Zambia Wildlife Authority. Additional funding, often linked to the black rhino reintroduction, has been received from amongst others the US Fish and Wildlife Service, the Prince Bernhard Fund for Nature, the Beit Trust, and Conservation Foundation Zambia.

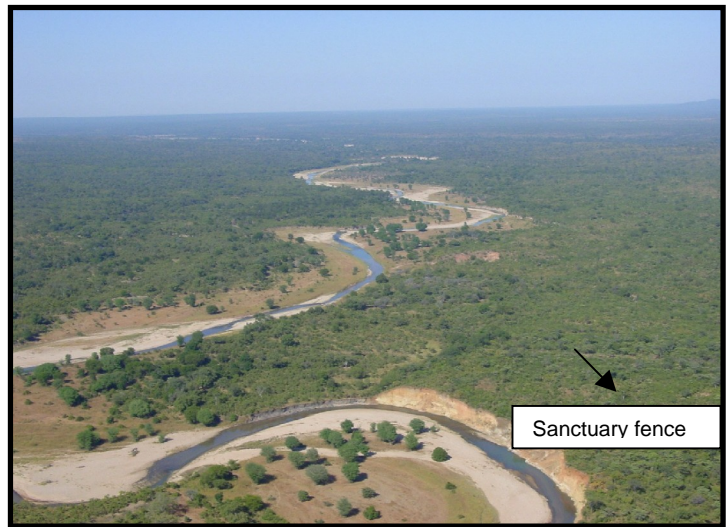
Seventeen years of NLCP support to ZAWA led to the situation where wildlife numbers had shown a steady increase over the previous decade, and poaching had been brought under control. The point had been reached where it was felt that a reintroduction of black rhino was a feasible and natural next step in the ongoing conservation efforts of NLCP and ZAWA in North Luangwa National Park.

Two years after the initial proposal was tabled, during which time the area was independently assessed by various rhino and security specialists, five rhino donated from South African National Parks arrived on Zambian soil in May 2003. This initial reintroduction went smoothly, but the entire project can only be a true success if a viable founder population can be achieved. While negotiations with potential donor countries have been ongoing, preparations on the ground has resulted in the building of a second, adjoining sanctuary, as well as new bomas and recruiting and training of scouts.

**Rhino sanctuary:** Given the conservation status of the black rhino, and the sensitivity of re-establishing a population in a country where the animals had been poached into extinction – a free release into the North Luangwa National Park was never a viable option.

Therefore a site was chosen for a sanctuary that was central, with good road access and that historically was known to be in rhino habitat. A conservative stocking density of 0.1 animals/km<sup>2</sup> was adopted. The sanctuary straddles the Lubonga

River, which ensures that water is available all year round. In order to minimise the effect of fencing off a part the Park, a simple electrified fence was designed that would contain black rhino, but which would allow most other species to either move over or under the fence. Time has proved that this fence has been very effective in keeping rhino in, and allowing relatively free movement of most other species. A fence maintenance team monitors the fence on a daily basis.



The new sanctuary joins onto the current sanctuary in the north. The fenceline separating the two sanctuaries will be kept for some time until animals have settled in their respective areas after which this fence will be removed. The ultimate goal is for the population to be completely free-ranging, but the decision to remove the fences altogether will only be taken at a later date.

**Security:** Although it is possible for international donors to provide financial back up and technical support in a project such as this - it is crucial that the actual protection and security of the animals remain in the hands of the relevant local wildlife authority. The Zambia Wildlife Authority has proved their commitment to the project by providing an additional 30 well trained scouts, specifically attached to rhino security. An agreement for an additional 20 scouts to come to North Luangwa in the case of additional animals joining the existing population has been made.

An additional 27 houses have already been built at Mano, the sector headquarters, to house the new rhino scouts. Specialised training has been provided, and a vehicle dedicated to the rhino team has been provided. The



Dedicated rhino protection team members

The scouts work on a rotation basis and are stationed for 10 days at a time in and around the sanctuary. There are 3 pickets around the fence, and an observation post on a hillside that has 24 hours surveillance of the area with binoculars and night-vision equipment.

The rhino scouts are personnel that are in addition to the staff already assigned for security of the Park in general. The regular wildlife police officers are based in camps all around the perimeter of the Park, and they deploy 35 patrols monthly, made up of 5 people that go out for 10-day foot patrols in the wider North Luangwa area.

**Monitoring:** Initially, all the rhino had radio transmitters implanted in their horns. However these transmitters only have a life span of about 2 years. With this anticipation, the scouts were trained from the beginning to not rely only on the transmitters, and started to track the animals by spoor.

Currently the monitoring is of very high standard. The aim is to positively identify each rhino once a month. The broken terrain with thick vegetation makes for very difficult tracking. Once an animal is seen a photograph is taken with a digital camera and a standard monitoring form is completed. Minimum disturbance is of the highest importance, and most of the time an animal is left behind without it even knowing that it has been observed. The information and the photos are then entered into a central database for further analysis.

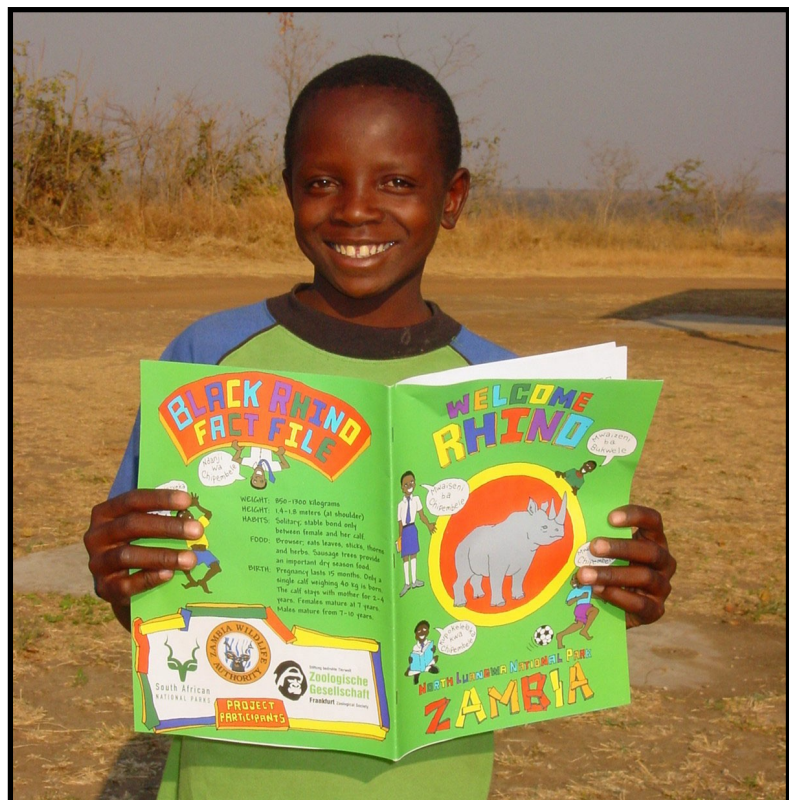


Rhino monitoring scout on patrol

A comprehensive rhino browse study was completed in 2005 to better understand and monitor the use that the rhino are making of the habitat.

**Local community involvement:** It was always envisaged that direct community involvement in the rhino project would be difficult to achieve as the sanctuary is located far from the Park boundaries, and the low stocking density has the result that animals are rarely seen. Two main strategies were employed to involve members of the community in the project – the first was to ensure that as many people and traditional leaders were present during the arrival of the rhinos in the Park, or had the opportunity to see the animals in the bomas in the first weeks. A local community board were also asked to recommend 5 traditional names in the language of the region so that the animals can become Zambian in every way. Secondly – a rhino information colouring book was produced, and the book with accompanying educational materials were distributed to all children who visited the rhinos in the bomas, as well as being handed out as part of NLCP's ongoing conservation education project.

Local schools were asked to name the new calf born in 2005 – and during a competition on conservation education day in October the name 'Buyantanshi' – meaning 'Progress', was chosen to symbolise the project's success.



Child with colouring book, telling the story of the return of the black rhino to Zambia

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Buyantanshi – the male calf born to Natwange in 2005.

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