## **RHINO NOTES**

## Post-war effects on the rhinos and elephants of Garamba National Park

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Efforts to conserve the northern white rhino (*Ceratotherium simum cottoni*) and the elephant (*Loxodonta africana*) in Garamba National Park, Democratic Republic of Congo (DRC), have been beset by periods of war, and the park's position on the border of war-torn Sudan has made conservation even more tenuous. Throughout most of the recent war in DRC, Garamba has been one of the five World Heritage sites in the country benefiting from the very successful project for conservation in regions of armed conflict under the aegis of UNESCO/UNF/ICCN (United Nations Educational, Scientific and

Cultural Organization / United Nations Foundation / Institut Congolais pour la Conservation de la Nature) and NGO partners. But ironically the most serious declines and threats of extinction of the past two and a half years appear to have been linked to post-war instability in power struggles and exploitation of resources particularly from neighbouring countries.

In the first eight years after the start in 1984 of the Garamba National Park project, supported by several non-governmental organizations, the northern white rhino population doubled, from 15 to 30, at an average rate of increase of 9.7%. Elephants increased from 3300

± 509 in 1984 to 11,175 ±
577 in 1995 with a local density of 2.46 per km² (Hillman Smith et al. 1995).

These elephants have been found to be a genetically unique intergrade between forest and savanna forms (Roca et al. 2001; Nicholas Georgiadis, pers. comm. 2003). Thus the pachyderms and the unique Congo giraffe (Giraffa camelopardalis congoensis) are all of intrinsic value and justify the World Heritage status of Garamba.

The war in southern Sudan increasingly affected Garamba from 1991 onwards with influxes of



A 7–9-year-old female northern white rhino, poached in Garamba National Park, July 2004.

armed refugees to surrounding areas and the presence of Sudanese People's Liberation Army (SPLA) camps on the border. Poaching, initially for meat, moved systematically down through the park despite well-organized anti-poaching and local collaboration by the ICCN/Garamba project partnership, which at least kept poaching out of the sector in the south where elephants and rhinos were concentrated. The conservation efforts maintained a stable rhino population of around 30 animals from 1993 to 2003, throughout the war in DRC, but considering that the rate of reproduction of the rhinos remained high, recruitment must have been balanced by offtake.

Elephant, hippo and buffalo populations suffered when rebel forces took over the park headquarters in 1997 because the guards were disarmed and antipoaching activities ceased. Elephant numbers fell from 11,175 in 1995 to  $5874 \pm 1339$  in 1998. However, the continued support of the International Rhino Foundation (an NGO partner) and of UNF/UNESCO enabled ICCN to maintain sufficient protection to keep the populations of large mammals stable, and elephants even increased from 1998 to 2003 (Hillman Smith et al. 2003).

From mid-2003, poaching increased and switched away from hunting for meat and trophies to solely seeking ivory and rhino horn. As the poachers progressed south through the park, several rhinos and elephants were reported to have moved out to the Domaine de Chasse to the south.

Results of the aerial total counts and a ground survey of minimum numbers of rhinos were as shown in table 1.

Nine rhinos were found dead during 2004, with most animals identified as individuals (fig. 1). One was a

female with a young calf and one was a pregnant female (Hillman Smith and Smith 2005).

Elephants and other large mammals have been counted through the systematic sample counts held regularly at the start of the wet season. By 2004 no elephants were found north of the Garamba River. The population estimate from the systematic sample survey in April 2004 was  $6354 \pm 2082$  (fig. 2), but the live-to-dead ratio was 17:1 and as the maps show (fig. 3), fresh and recent carcasses (stages 1 and 2) and carcasses that were older but still less than one year old (stage 3) were distributed throughout the southern sector, including within a few hundred metres of the park headquarters. A rough total count in November 2004 as part of the rhino and poaching survey indicated no more than 2000 elephants within the park, although there may have been more in the Domaine de Chasse. The total count of the southern sector in August 2005 yielded an estimate of only 1202 elephants within the park (de Merode et al. 2005).

Results from the law-enforcement monitoring and informer networks show that Sudanese involvement in the poaching has been at least 70%. Poaching was done mainly by ex-SPLA and deserters; by local people, often with civil authority involvement; and since 2004 by large groups of the fierce 'muharaleen'—Arab horsemen from Sudan, like those involved in perpetuating the Darfur crisis. In recent months, several hundred of the rebel Lord's Resistance Army forces from Uganda have been in the area living off the land. The upsurge in poaching coincided with the ceasefire in Sudan, which left armed forces unoccupied and opened easier passage through parts of Sudan that were previously enemy occupied.

In response to the massive rise in poaching in 2003, an emergency strategy was drawn up at the park,

Table 1. Northern white rhinos in Garamba National Park and Domaine de Chasse

| Date     | Method         | Minimum in park (no.) | Other possibilities                           |
|----------|----------------|-----------------------|---|
| 2003     |                |                       |   |
| April    | Air total ID   | 30                    |   |
| August   | Air total ID   | 22                    |   |
| November | Air total ID   | 19                    |   |
| 2004     |                |                       |   |
| July     | Air total ID   | 15                    | > = 2 in DC Gangala na Bodio, tracks verified |
| November | Air total ID   | 4                     | > = 4 in DC Gangala na Bodio                  |
| 2005     |                |                       | ŭ   |
| July     | Ground, tracks | 3–6                   |   |
| August   | Air total      | 4                     | unknown possible numbers in DCs?              |

DC - Domaine de Chasse

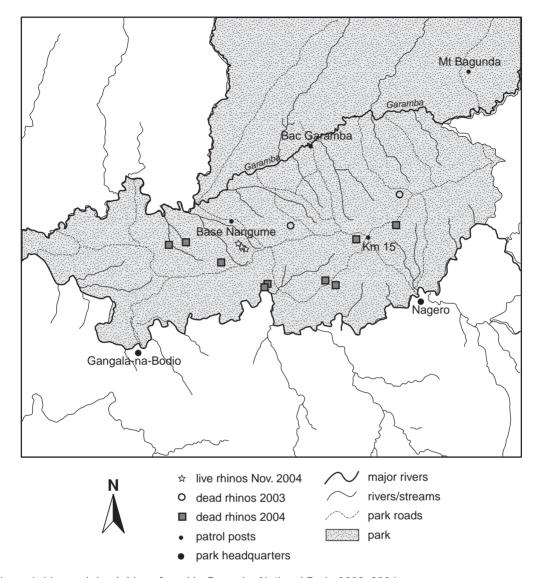


Figure 1. Live and dead rhinos found in Garamba National Park, 2003-2004.

approved by the Administrateur Directeur General of ICCN, and immediately put into effect. It had several approaches, but one of the key priorities was capacity building through field training and leadership with the ICCN field staff to help them combat the threats. The training went well, but at the start of its field application in April 2004, the northern horsemen were detected in the park for the first time and armed contacts led to deaths on both sides. This fierce threat and the deaths of their comrades had a demoralizing effect on the guards.

A major stakeholders' meeting in July 2004 welcomed several more potential donors, and an emergency strategy of over 1 million dollars was drawn up for in situ conservation. Training was again a major priority, this time with a team of experienced francophone trainers who had operated in Central African Republic, plus equipment, and community and technical support. In addition the joint meeting drew up a proposal to hold five of the rhinos in safety elsewhere temporarily until the poaching could be brought under control and the political instability and the resource exploitation from surrounding areas were resolved. This was aimed to prevent extinction of the northern white rhino in the wild—a threat that had become very real. It would assure that DRC would not lose its precious heritage, nor

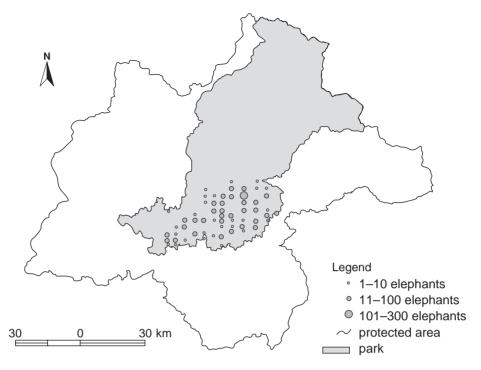


Figure 2. Disribution of live elephants in Garamba National Park from systematic aerial sample aurvey, April 2004.

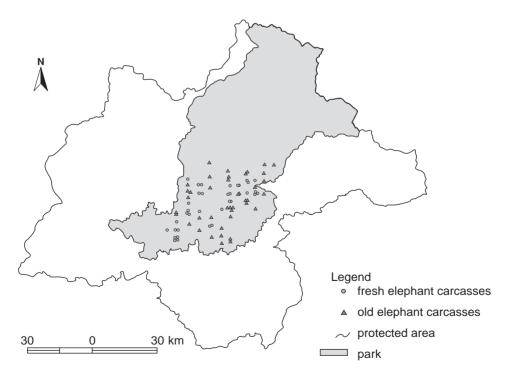


Figure 3. Distribution of elephant carcasses found in Garamba National Park from systematic aerial sample survey, April 2004.

Garamba its World Heritage status. It would guarantee the continued commitment to Garamba of donors who justified their input because of these rhinos and who would be forced to withdraw their support if all the rhinos in the park were allowed to die. ICCN welcomed the option, and members of the IUCN African Rhino Specialist Group did all the background research and evaluation. They documented methods to provide ICCN with the full details to present to the Ministry of Environment.

Although it was hoped that the increase in in situ support would render such action unnecessary, the survey in November 2004, which could find only four rhinos in the park with possible but unknown numbers outside, caused alarm. A diplomatic mission to Kinshasa in January 2005 met with a very positive response from most parties, and Vice President Yerodia announced that all four of the vice presidents and the president himself were in favour of a temporary rescue translocation of five of the rhinos. Funds were made available from sources other than those supporting the park and therefore in no way did this project detract from support to the park.

However, certain parties were canvassing against the move for political reasons, and a televised debate on the issue was held with the general public. With elections looming and government positions unstable the government was swung by misinformed public opinion, and the minister of Environment chose not to sign the protocol of agreement that ICCN and partners, including UNESCO and IUCN, had drawn up. Conservateurs and directors were arrested; the director of ICCN was heavily criticized as were the project partners. The work of the trainers in Garamba was stopped by misinformed personnel, and finally the annual planning meeting for the conservation of the park was stopped because threats from local

groups made the conservateur feel that holding the meeting would be too dangerous. The coalition of donor supporters requested ICCN to take action to rectify the situation and a meeting of the World Heritage Commission of UNESCO passed a motion that Garamba would lose its World Heritage status if the rhinos became extinct in situ.

Much positive action has ensued, and the African Parks Foundation, with management rights, is now bringing major support to Garamba, which we hope will turn the tide. Intensive surveys under the auspices of IUCN/SSC and African Parks are planned for early 2006 to consider the range of values leading to World Heritage status, the rhinos, elephants and giraffes, and the park itself. The aftermath and longer-term effects of wars have proved harder to deal with than the wars themselves, but all possible is being done to ensure that the second largest and the most endangered land mammal does not become extinct.

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## Save the Rhinos—when the European zoo community fights for their survival

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Rhinos have been chosen as the new subject for the 2005/06 campaign of the European Association of

Zoos and Aquaria (EAZA). Launched at the beginning of September, this year-long campaign aims to

