

Table 1. Results of rere trapping at Lac Ankomakoma

Trapping period	Trap days	Captures		Recaptures		Number of released turtles known to be alive (KTBA)	Released turtles KTBA as a percentage of total number released
		Wild	Released	Wild	Released		
Dec 2001	60	4	-	-	-	-	-
Mar 2002	254	5	-	2	-	-	-
Nov 2002	54	4	-	-	-	-	-
Feb 2003	231	8	-	2	-	-	-
Nov 2003	204	18	-	7	-	-	-
Feb 2004	192	14	-	14	-	-	-
Mar 2004	-	-	-	-	-	158	-
Apr 2004	64	4	4	4	-	46	29
Nov 2004	189	18	23	11	1	43	27
Feb 2005	240	15	21	12	8	32	20
Nov 2005	228	27	21	18	14	21	13
<b>Total</b>		<b>117</b>	<b>69</b>	<b>70</b>	<b>23</b>		

This was monitored by placing nets across the river and flushing turtles into the net at 50–100 m intervals in May 2004 and April-May 2005 on the river and by requesting reports of turtles found by local people. So far, no released turtles have been found outside the release site. Post-release trapping has also provided additional information on the resident rere population at Lac Ankomakoma. A total of 47 turtles have been captured since December 2001, of which five were adults (2:3) and two sub-adults (1-1.5 kg). Of 27 individuals captured in November 2005, ten were small juveniles (under 100 g), indicating that this population is reproducing successfully. Close collaboration has been maintained between the village association and park authorities, for example by periodic joint missions to monitor resource use around the lake. There has been no sign of raffia cutting and camping or of fishing at the lake since the release. Increased protection of the lake has enabled the vegetation around the lake to continue regenerating and may have been the reason for a pair of the critically endangered Madagascar fish eagle (*Haliaeetus vociferoides*) to start nesting there. Further monitoring is required over a longer time period to evaluate the direct contribution that released captive-reared rere will make to the depleted wild populations. An important outcome of the release has been the increased surveillance and protection of the lake and the existing rere population.

#### Acknowledgements

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## MAMMALS

### Re-introductions of black rhino in KwaZulu-Natal, South Africa

There were more than 65,000 wild black rhino in Africa in the mid-20<sup>th</sup> Century. Then a devastating poaching wave swept down the continent in the 1970s and 1980s. More than 95% of the black rhinos in Africa were wiped out by poachers. Demand for rhino horn in the Middle and Far East, made easier by economic and political instability in some African countries, drove the slaughter. By 1992, there were only 2,500 black rhino left, mostly in heavily protected reserves. Since then, black rhino numbers have been inching back up, thanks to intensive protection efforts in state and private sectors. By 2004, there were an estimated 3,600 black rhino in the wild, almost all of these in South Africa, Namibia, Kenya and Zimbabwe. But there is no room for complacency. The demand for rhino horn continues and many of the political and economic conditions that threaten black rhino-poverty, corruption, instability, land-hunger—still exist. High security is one

# Mammals

critical element of black rhino conservation. The other is biological management focused on growing the overall population as fast as possible. Rapid population growth can mean the difference between survival and extinction. Faster growth provides a bigger buffer against poaching or natural disaster and minimizes genetic loss. As with investing money, small differences in growth rate of the overall black rhino population make a big difference over time.

One project which aims to help increase overall black rhino population growth rate is the WWF/Ezemvelo KZN Wildlife Black Rhino Range Expansion Project in KwaZulu-Natal, South Africa. South Africa has approximately 38% of the existing black rhino population and approximately 500 of these are found in KwaZulu-Natal. Ezemvelo KZN Wildlife, the province's formal conservation authority, has a world-class track record of innovative and successful rhino conservation. Formerly known as the Natal Parks Board, the organization was responsible for bringing the white rhino back from the brink of extinction in one of the great success stories of 20<sup>th</sup> Century conservation.

Now, they are carrying that proud history forward with black rhino. Ezemvelo KZN Wildlife have very successfully protected their black rhino, but the organization's protected areas have finite borders and black rhino are already bumping up against the edges. There is a concern that this could lead to an overshoot of ecological carrying capacity, as well as a density-related decline in population growth rate. So, in partnership with WWF, they have embarked on the Black Rhino Range Expansion Project which aims to increase land available for black rhino conservation, thus reducing pressure on existing reserves and providing new territory in which the animals can rapidly increase in number. Relatively large founder populations established on land with a high carrying capacity for black rhino seem to experience high population growth rate. There are four subspecies of black rhino. The focus of the Black Rhino Range Expansion Project is on *Diceros bicornis minor*, found mainly in South Africa and Zimbabwe. Initially the Project focused on KwaZulu-Natal but the potential exists to look further afield.

## Approach

The Project team is funded by WWF and works closely with Ezemvelo KZN Wildlife. The Project forms strategic partnerships with landowners—whether private, state, or communal—who hold large areas (ideally at least 20,000 ha with an ecological carrying capacity of more than 50 black rhino) within the historic range of the black rhino. Once the partnership agreements are signed and sealed, then founder populations of up to 20 black rhino are released on to the new site. This is thought to be optimal for rapid population growth. Because of the large area of land required, the project site can be made up by partnerships between adjacent landowners who are prepared to drop their internal fences. The project began in July 2003 and has so far released a founder population of black rhino on to two new sites. In two years the Project has catalyzed the creation of about 40,000 ha of barrier-free land for black rhino in its historic habitat in KwaZulu-Natal with more areas lining up as potential future sites. This is good for black rhino but also for many other



Black rhino (*Diceros bicornis*) translocation  
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species which benefit from the ecologically-rational use of land. Much of the land was already under conservation but in relatively small pieces divided by internal fences. The courageous decisions of landowners who have committed themselves to creating these large areas have benefited black rhino and many other species that live alongside them. Potential partner sites throughout the province were assessed and those that met the stringent criteria were short-listed. (See selection criteria below). The successful sites are recommended by the Project leader, after consultation with the Management and Steering committees of the Project, and the final choice is made by the Board of Ezemvelo KZN Wildlife Board. The first site was Mun-ya-Wana Game Reserve in northern KwaZulu-Natal which consists of four adjoining properties (Phinda, Bumbeni, Zuka and Phumalanga) which dropped the fences between them in order to create a barrier-free area of just less than 20,000 ha for black rhino. Mun-ya-Wana borders Ezemvelo KZN Wildlife's Mkhuze Game Reserve and the contract signed regarding black rhino included a clause that efforts to remove the dividing fence be concluded within a reasonable time-frame. A founder population of the 15 black rhino was released on to the new site in October 2004.

The second site, also in northern KwaZulu-Natal, is Zululand Rhino Reserve. This site covers 24,000 ha of savannah bushveld made up of 20 neighboring properties whose owners removed their internal fences in order to create a significant, barrier-free haven for endangered species, including black rhino. In October 2005, a total of 21 black rhino were released on to the site. Work has already begun on potential site three and beyond. The focus here is not only on privately-owned land but on community-owned land. In South Africa much land under conservation has been subject to land claims by formerly dispossessed communities. The Project is working with successful land claimants to help them maintain economically successful conservation areas. The model works as follows - a founder population of black rhino and management guidelines are made available by Ezemvelo KZN Wildlife, while the other partners provide the land and ensure high levels of security and management. Landowners are custodians of the initial founder population, which remains the property of Ezemvelo KZN Wildlife. However, half of the progeny will be owned by

the landowners and half by Ezemvelo KZN Wildlife.

#### Selection criteria for Project Partners:

- The land must provide suitable black rhino habitat within the historical range of *Diceros bicornis minor* (initially within KwaZulu-Natal, although the potential exists to expand the project area at a later date). There must be no black rhino of another sub-species on the property.
- The area should ideally have an ecological carrying capacity of more than 50 black rhino, and can be made up by partnerships between adjacent landowners who are prepared to drop fences.
- There should be no barriers to free movement of the black rhino population within the area.
- The land must have security of land tenure and good security prospects.
- The landowners must show a demonstrable capacity and commitment to manage and protect a black rhino population. They must also make tangible contributions in cash or kind towards the custodianship of the black rhino.
- The landowners or partners must agree to enter into legally binding long-term management agreements with Ezemvelo KZN Wildlife.
- Properties where the current land use is wildlife based, current poaching levels are low, fencing is adequate, and with a link to an existing black rhino area have an advantage, as do those offering economic potential to local communities.

#### Project Modules

The Project has two modules 1) one which focuses on finding new areas, and, 2) the other which helps protect existing source populations through funding, for example, ear-notching programs to improve monitoring of black rhino; purchase of equipment; training for field staff.

#### Discussion/ Lessons learned

Both translocations have been successful so far. The decision to release black rhino without using accepted best practice of holding bomas at the receiving end was very successful. There have been no losses through fighting, accident or any other cause and the first calf has been born on Mnyawana Game Reserve (although in this instance the mother was already pregnant when relocated. The first calves conceived on the project sites can only be expected in early 2006). Both sites have a dedicated monitor who sees each black rhino at least once every two days.

It is too early to detect any real increase in the growth rate of the black rhino populations in KZN, the main objective of this project. However, we are hopeful that the project will have been a success because the black rhino in the Ezemvelo KZN Wildlife game reserves had reached saturation point with limited prospects for a healthy growth rate (a decline had already been detected). Removing 5 to 7% of those populations will have relieved population pressures on those reserves (with the hope that those populations will grow at that removal rate) and the animals removed were used as founders for the two new populations. Land was brought into formal conservation activity by the innovative use of partnership schemes whereby landowners not normally associated with formal

conservation could participate in this one, with clear financial promise at the end of the day.

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## The release of Apennine chamois in Central Italy: 20 years later

Late in the 19<sup>th</sup> Century, a zoologist noticed the pelt of an unknown chamois in a friend's house: the Apennine subspecies (*Rupicapra pyrenaica ornata* NEUMANN, 1899), of chamois was born, thus. Its very distinctive whitish large throat, shoulder and rump patches in the winter coat, beside many other differences, make it immediately recognisable, with its Iberian smaller cousins (*R.p. parva*, Cantabrics; *R.p. pyrenaica*, Pyrenees), from all other chamois *R. rupicapra* who have just very small throat and rump patches. While its geographic neighbour, the Alpine chamois (*R.r. rupicapra*) is probably the most abundant wild ungulate in the Alps with its 400,000 head, the Apennine chamois (presently, 1,100 head) is rated as endangered by the IUCN. Red List (2004), is in Annexes 2 and 4 of the EU-Habitat Directive 92/43 and it is in Appendix I of the CITES, 1979. By the Italian law (N. 157/92), this chamois is amongst the "particularly protected" taxa. In the early 20<sup>th</sup> Century, only one remnant small population of Apennine chamois (no more than a few tens of individuals) remained in a royal hunting reserve, which in 1922 became the Abruzzo National Park. After almost half a century at low to very low numbers, in 1970s the chamois in the Abruzzo National Park started recovering, presently being about 600 head, with a relatively modest yearly increase rate of 7%—which is surprising, as there are suitable areas not yet colonised in the Park.

About twenty years ago, the release of these chamois in other areas of the Central Apennines was planned on behalf of the Abruzzo National Park Agency, the Italian Alpine Club, and the WWF-Italy. In 1991 a first group of 15 individuals was liberated in the Majella massif, now Majella National Park. In 1992-93, 16 chamois were released in Gran



Apennine Chamois  
(*Rupicapra pyrenaica ornata*)  
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