FEBRUARY 2007

WILDERNESS SAFARIS WILDLIFE TRUST

WILDERNESS
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Contents

About the Trust

For almost 20 years, the Wilderness Safaris Wildlife Trust has supported a wide variety of wildlife management, research and education projects in southern Africa. These projects address the needs of existing wildlife populations, seek solutions to save threatened species and provide education and training for local people and their communities.

To make a difference to Africa, its wildlife and people is the main goal that underscores all the projects which the Trust helps to fund, making use of a number of methods and types of project to do so. One kind of project studies and monitors a particular species in its natural environment and in so doing also contributes to its protection. Moving beyond research into hands-on management is another variation on this theme.

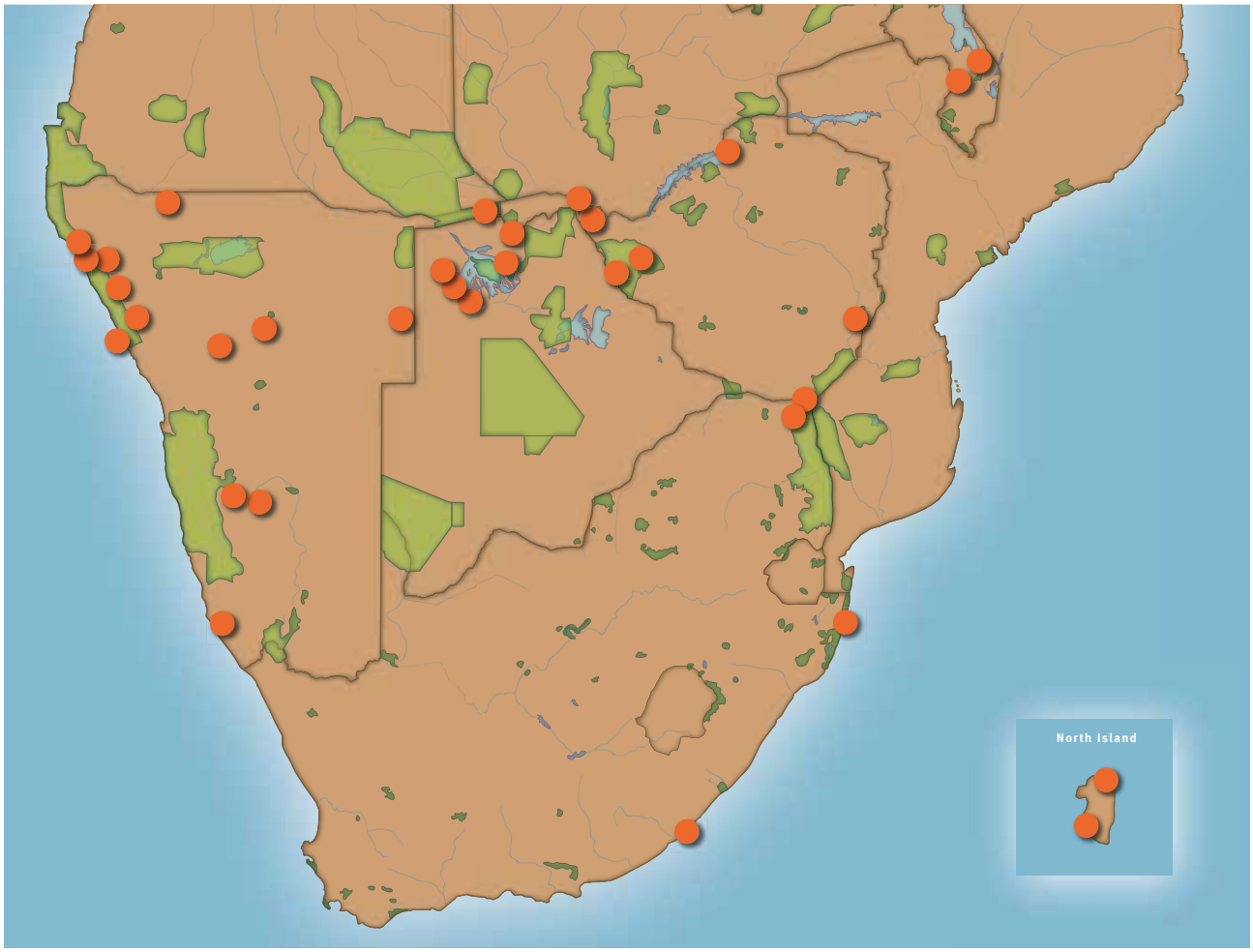
Study of a species sounds like a purely academic pursuit, but within such investigation lie the seeds for its protection and survival. The better we understand a species and its environment, the more efficiently we'll be able to protect it in a world where the struggle for space becomes paramount and human-animal interactions become increasingly conflicted. Most of the Trust's projects have this as an ultimate objective and some amazing headway has been made.

Wilderness Safaris Wildlife Trust is involved financially in a number of such projects, supporting research, habitat management, and conservation science, while Wilderness Safaris contributes logistically in terms of human resources and equipment.

But conservation of flora and fauna is limited as long as the people who live in the vicinity are unconvinced or left out of the process. Financial and educational empowerment of local communities so that they benefit from the wildlife on their doorsteps is therefore vital., and as such, broad-based and comprehensive initiatives are in fact the bedrock of the Trust, providing skills and knowledge necessary to communities to value and manage their wildlife populations.

Wilderness Safaris is acknowledged as a leader in the educational process thanks to its innovative formal and informal education projects, supported by the Trust. The Children in the Wilderness programme aims to educate the youth of Africa, inspiring and assisting them to preserve their magnificent natural heritage.

Trust Projects across Southern Africa



Introduction

Wilderness Safaris Wildlife Trust had another effective year in 2006 with new and continuing projects in seven southern African countries (including the Seychelles) receiving important funding. We continued on the course charted by our activities in 2005 and focused on a number of ongoing projects in key areas and involving key species and rural communities, as well as taking on a handful of new projects either in support of existing work or in entirely new areas.

Funding supplied through the Annenberg Foundation in the United States for example made its way to North Island in the Seychelles where it contributed significantly to the ecological rehabilitation of the island – an ongoing and vitally important project for the future survival of species endemic to the Seychelles. Other new projects included an aerial census – the first in some years - of Liwonde National Park in Malawi, the data gathered from this providing much-needed facts on which to base the management of the park. A wild dog study by Dr Peter Lindsey and Dr Stephanie Romañach in Zimbabwe's Savé Conservancy evolved as a matter of necessity and priority into a study of the bush-meat trade and poaching trends, and an ambitious umbrella project that intends catalysing population growth and recruitment in the desert-adapted black rhinoceros in Namibia also received funding from the Trust this past year.

Rhino conservation was a continued theme running through the Trust's work in 2006 and funding was contributed to relocation, research, monitoring and management of white and black rhino in Botswana's Okavango Delta, South Africa's Kruger National Park, and Namibia's Kunene region. In these cases the Trust worked with private companies like Wilderness Safaris, NGOs such as Save the Rhino Trust, and state conservation agencies such as Botswana's Department of Wildlife and National Parks, South African National Parks and Namibia's Ministry of Environment and Tourism – all parties contributing towards the critical range expansion and population growth of these endangered and vulnerable species.

Similar projects focusing on the conservation of endangered species continued to be pursued in Namibia (brown hyaena; Cape vulture; black mongoose) and South Africa (leatherback and loggerhead turtles), while a renewed theme was the investigation of human-animal conflict. This is particularly pertinent in Namibia currently where the highly successful communal conservancy system that has made millions of hectares of communal land available to wildlife has also thrown new focus on the age-old conflict between rural subsistence economies and large mammals. Accordingly the Trust provided funding to investigations of this phenomenon in three different areas of the country: Dr Tammie Matson investigated mitigation measures for human-elephant conflict in Nyae Nyae in north-eastern Namibia; Dr Keith Leggett continued to look at elephant movements in northern Namibia; Dr Flip Stander continued his work on lion ecology in the Kunene region.

Zimbabwe by contrast and as a result of a differing socio-political situation has developed very different current needs in the realm of conservation. In addition to providing funding for the above-mentioned bush-meat trade, the Trust has also funded an anti-poaching and education programme in Victoria Falls. In Hwange National Park funding has been made available for anti-poaching work, and also for logistical issues such as the supply of borehole pumps and fuel to allow the park to continue to supply vital water to its enormous quantity of game, particularly in the dry season.

Conservation and wildlife management would come to naught without the involvement of rural people however and the Trust recognises the need to build local capacity, skills and education. Children in the Wilderness which operates in South Africa, Botswana, Namibia, Malawi and the Seychelles therefore receives funding from the Trust for its children's programmes and similarly the Trust provided further funding for the construction and equipping of schools in the Mkambati region of South Africa. Simonga Village in Zambia has also gone from strength to strength in its efforts to modernise the school and improve facilities both here and more broadly across the village in terms of water provision and farming skills.

We have also continued with our education bursary and look forward to helping many more wildlife conservation and research students in the future as well.

Finally our sincere and heartfelt thanks not just to all those involved in making the projects work, but equally importantly to all those committed individuals who have undertaken to raise funds of their own accord. Thanks too, to all those who have helped in their various capacities to make the Trust run over the last year: Don Bailey, Margot Bell, Chris Mostert, Ilana Stein and Grant Wolpert. We are also grateful to Colorpress for printing this report, to Horwath Leveton & Boner for preparing the financials, to Bell Dewar Hall for legal advice and to Amos Eno and Laura Mass at the Resources First Foundation for helping make a difference.

The Trustees
Russel Friedman,
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Chris Roche

Liwonde National Park
aerial census

In August 2006, a helicopter aerial game census of Liwonde National Park, Malawi took place, forming part of the Trust's involvement in the long-term vision for the future of the Park.

Liwonde National Park (LNP), the premier wildlife viewing destination in Malawi, covers 538 km² and is situated in the Upper Shire Valley. The grass-covered floodplains attract large numbers of elephant, waterbuck and impala and are the critical dry-season food resource for most of the wildlife of the Park. There is a large population of hippo in the park, and mopane woodland provides habitat for an impressive population of sable antelope for which Liwonde is renowned. Liwonde also supports the largest population of African elephants in the country, and the only one that is currently increasing.

An aerial total count was carried out on 7th August 2006 using a Bell 206 helicopter. An additional reconnaissance survey was also undertaken over the adjoining Mangochi Forest Reserve (MFR) to establish the status of elephants in the area. Elephants are believed to move regularly between Mangochi and Liwonde, concentrating along the Shire during the dry season and utilising the miombo woodlands and Arundinaria thickets of Mangochi during the wet season.

The aircraft was piloted by Dr. Sybille Quandt who kept a GPS track of the flight, and Dr. Anthony Hall-Martin recorded the data on a map of the Park, and on check sheets as it was called out by the pilot or observers. The observers were Gibson Mpepho and Julius Chiomba. Bryson Banda, and Callie Martin assisted with data evaluation and interpretation.

Evaluation of the results of this study, taken together with population size estimates derived from earlier work in Liwonde National Park, has led to a number of conclusions, including the following:

- Comparison of numbers of elephant, hippo, buffalo, sable antelope and waterbuck with estimates for 2005 were all compatible, allowing for the inevitable variability of data sets derived by different census methods, and the expected natural recruitment to the populations. This provides some confidence that the census results are consistent and realistic for these species.
- Numbers of animals counted on the floodplain, swamp, grassland and woodland complex between the Likwenu and Namasundu Rivers were high and in accordance with animal numbers in similar habitat further north in the park. A total of 139 elephants, 37 buffalo, 603 waterbuck, 66 warthogs, 87 hippo, 7 bushbuck and 15 impala were counted in this area.
- The presence of elephants outside of the Park seems to be due to the non-functioning, vandalisation and lack of maintenance of the Park's boundary fences.
- The occurrence of 242 sable antelope in the 40km² fenced sanctuary within the park is about ten times the density of sable antelope elsewhere in the woodlands where 280 sable were found in approximately 400 km². Since there is no difference in the habitat quality inside and outside of the Rhino Sanctuary the most likely cause is the extent of poaching, particularly the snaring, of sable over the past few years. Anecdotal evidence derived from game scouts and Wilderness Safaris staff indicates that there is a high level of snaring.
- There was abundant evidence of large-scale illegal fishing operations in the Shire River, mostly south of the Mwalasi River and concentrated opposite Chiunguni. There was also a large amount of evidence of illegal wood-cutting on a commercial scale and other resources of the reserve being used on a large scale as well as encroachment by houses and gardens across the northern boundary of the Park close to Lukulungwa Village.
- The flight over Mangochi Forest Reserve revealed signs of regular occupation of the Nkhoche Valley by elephants.

These results and conclusions suggest that the survey was worthwhile and allowed a number of management questions to be addressed. Among these are the movements of elephants out of the Park, the extent of illegal activities in both LNP and MFR, and the population increase of various species. Most importantly the census provided crucial baseline data for the management of Liwonde National Park.

Savé Conservancy
Bush-Meat Survey

In 2005, Dr. Peter Lindsey and Dr. Stephanie Romañach began research on African wild dogs in the 3440km² Savé Valley Conservancy (SVC), in south-eastern Zimbabwe. Shortly after commencing field work, it became apparent that the key threat facing wild dogs (and virtually all other wildlife species) in the area was the bush-meat trade. The focus of their research therefore shifted to discover the extent and impact of the bush-meat trade in Savé Valley Conservancy and through this, to identify underlying causes and potential solutions.

The project goals were to develop tools to reduce the impact of snaring, by addressing the underlying causes for the bush-meat trade and by enhancing the ability of the conservancy to police the wildlife resource. A variety of methods are used to achieve these goals, including continuous collection of detailed poaching statistics, a comprehensive survey of the opinions and attitudes of SVC's anti-poaching game scouts, bush-meat hunters, and people in neighbouring communities who purchase the illegally harvested bush-meat.

A Masters student (Steven Matema) from the University of Zimbabwe was employed to assist with these surveys, as well as train field assistants to conduct interview surveys, to interview game scouts and apprehend poachers. Steven will use the data collected to contribute to his Masters thesis.

Preliminary data so far show that the problem is severe and that in parts of the conservancy, illegal off-takes are unsustainable. During August 2005 to September 2006, 9 239 snares which resulted in the death of at least 869 animals were removed from SVC by anti-poaching scouts. However, the preliminary data also highlight potential solutions. Incidences of illegal hunting tend to occur in predictable patterns, both in time and space. By predicting these patterns, anti-poaching scout patrols can be deployed more effectively.

There is a clear spike in poaching incidences in the late dry season when food shortages are most severe. This suggests that if an affordable source of bush-meat was made available in the areas neighbouring the conservancy at key times, the market for poached meat would decline (this suggestion was backed up by recommendations made by respondents during interviews with game scouts and buyers of bush-meat).

Providing a legal supply of bush-meat has clear advantages to both people in terms of food security and to wildlife in terms of the unselective and wasteful nature of snaring. 29 species of animals have been recorded killed in snares since August 2005, several of which are listed during the interviews as being not eaten by most people (e.g., baboons, predators). In addition, 67% of animals caught in snares are never recovered by poachers and left to rot or be eaten by scavengers (which then run the risk of being caught in the snares).

Ultimately, this project hopes to provide information that helps to address one of the major threats facing wildlife in Zimbabwe and in many other African countries.

North Island Rehabilitation Project

The impact of humans on the Seychelles archipelago over the past 200 years has been devastating for its uniquely adapted endemic plant and animal species. North Island, one of the 40 inner granitic islands of the Seychelles, is no exception. Formerly a coconut plantation and vegetable / fruits farm, it was abandoned in the 1970s following the collapse of the copra industry. However, many intentionally introduced plant and animals species (e.g. coconuts, lantana, cats and feral farm animals) as well as unintentionally introduced invasive species (e.g. black rat), remained behind, smothering indigenous plants, decimating endemic animal life and drying up the marshland.

In 1990, a biodiversity study undertaken to evaluate the Seychelles islands for their potential for rehabilitation identified North Island as suitable, but with the conclusion that rat eradication and vegetation rehabilitation (removal of invader plants and subsequent planting of endemic species) were prerequisites to endemic fauna and flora introductions. This was considered a financial challenge due to the island's size.

In 1997, the island was purchased by North Island Company's current shareholders as a tourism venture, with the intention of transforming the island into a sanctuary where natural habitats could be rehabilitated and endangered Seychelles animal and plant species reintroduced and given a space to regenerate. This initiative was called the "Noah's Ark Project" and would be sponsored through the lodge that was developed on the Island.

This project therefore has begun to implement the rehabilitation of the Island, starting with rat eradication (now complete) and the ongoing removal of invader plants.

The North Island Rehabilitation Project provides necessary assistance in accelerating the vegetation rehabilitation of the island by adding casual labour to the resident Landscape Team, and supporting the future introduction (in 2007) and subsequent monitoring of Seychelles White-eyes, a critically endangered endemic bird species, in support of the Government's management programme to safeguard the survival of this species.

Additional areas are being rehabilitated by removing alien invader plants and trees and replacing these with endemic broadleaved and fruiting trees. Whilst the fruiting trees will be supplying berries and fruits, the broadleaved trees form a suitable habitat for insects, both being the main food components in the diet of the Seychelles White-eye.

The results of the project include a 5.5-hectare area transformed into suitable Seychelles White-eye habitat, and 35 Seychelles White-eyes to be introduced and subsequently monitored

This project is made possible through the funding of the Annenberg Foundation. The Annenberg Foundation exists to advance the public well-being through improved communication. As the principal means of achieving its goal, the Foundation encourages the development of more effective ways to share ideas and knowledge. The Annenberg Foundation has offices in Radnor, PA and Los Angeles, CA. www.annenbergfoundation.org

Namibian Black Rhino
Habitat Assessment

As a result of poaching, 25 years ago, the desert-adapted black rhino (Diceros bicornis bicornis) teetered on the edge of extinction. Since then Save the Rhino Trust (SRT), together with local communities, have succeeded in eliminating poaching in the Kunene region of Namibia, so that currently north-west Namibia holds the largest unfenced population of black rhino in Africa.

However, through habitat destruction and population fragmentation, groups of black rhino have been separated for at least 100 years, and therefore habitat assessment has become one of the key conservation strategies for wildlife management. While the SRT has studied rhino habitat on a large scale, in 2005, a black rhino workshop was held among different stakeholders, where the need to research the habitat of the black rhino on a local scale was raised. The Namibian Black Rhino Assessment, carried out by M.Sc. student, Basilia Shivute, therefore explored the use of habitat by the black rhino within its range, taking into account plant density, diversity, tree and shrub species composition, and investigated the influence of terrain on both the vegetation and on the black rhinos.

This study was carried out in the Kunene Region, an area of about 144,255 km2, where tourism has been identified as a key development sector for the region. Three sites were selected within the Region: Palmwag Concession, ≠Koadi //Hoas Conservancy and Torra Conservancy. These areas were selected on the basis that Palmwag concession and Torra conservancy contain at least 90% of black rhino in north-west Namibia, while ≠Koadi //Hoas is earmarked as a reintroduction site, with a reintroduction trial already started.

Species diversity, richness, composition, and browse availability were analysed in relation to environmental variables such as rainfall, slope and distance to major rivers or perennial springs.

The study found that black rhinos utilise areas of higher elevations, areas of closer proximity to major rivers and perennial springs, areas of higher rainfall range and areas with steeper slopes. Closer proximities to water sources emphasise the importance of water in an arid environment like north-west Namibia.

This study highlighted the variation of species diversity, richness, and composition in different main habitats as well as in different geographic locations. It has also therefore formed a foundation to guide creation of multiple, black rhino habitat suitability models across their historical range to prioritise optimal sites for translocation.

The project may also establish a means of rapid monitoring of black rhino habitat, which can be incorporated into Save the Rhino Trust monitoring programme. Moreover, the study has added to the much-needed vegetation diversity database in these areas.

Communal Conservancy Black Rhino *Relocations*

Namibia holds almost a third of all the black rhinoceros remaining in Africa, and 95 percent of the south-western subspecies (*Diceros bicornis bicornis*). The North West (Kunene) population, the largest population of black rhino outside a protected area, has increased over the last twenty years under strong partnerships between the Ministry of Environment & Tourism (MET), NGOs such as Save the Rhino Trust, concessionaires such as Wilderness Safaris and the local people in Kunene

While rhino numbers have increased steadily under this innovative conservation and management programme, the annual growth rates of the Kunene black rhino have declined steadily. In addition, new challenges face the area, particularly the need to secure the long-term sustainability of monitoring programmes and to further integrate tourism with conservation objectives.

To improve this situation, a number of translocation and tagging operations were carried out in 2006 to expand black rhino range into specific identified areas within communal conservancies. 22 specific individuals were identified from the database and earmarked for the operation by being fitted with transmitters in 2006. In 2007, once conditions are at their peak in the release sites, these animals will then be located by air, caught and moved immediately to the release site.

The first step, though, was the testing of equipment and translocation procedures involving male animals. MET translocated two bulls from the upper Aub and Barab rivers to the Kliprivier in the #Khoadi - //Hôas Conservancy where a single cow resided; during this translocation newly custom-built equipment was field tested for the first time.

The Trust provided financial assistance to assist in the hiring of a helicopter that was used for the capture and translocation of two male black rhinoceros from the Palmwag concession area and two receiver units for follow-up post-release after the planned operation. As per Namibian policy, transponders were inserted in all animals immobilised. In addition, Peter Hitchins, the world expert on rhinoceros ageing, trained field personnel in the field ageing and development of an adapted field ageing reference for Namibia.

All in all, 13 animals (seven males and six females identified from the Kunene database) were fitted with transmitters in the upper Barab and Aub rivers of the Palmwag Concession area. Reasons for choosing this area included the fact that it has the highest density of black rhino within the current range, the ratio of male/female is skewed towards males; and the area is close to or at carrying capacity.

Finally, a further nine animals were marked and fitted with transmitters in the Poacher's Camp and Springbok River area of the Torra Conservancy. This was done to assist the community in developing business opportunities in the reliable and sustainable tracking and viewing of black rhino with paying clients.

Conclusion

The operation was a huge success. An important factor was that the helicopter time was reduced from over two hours per animal in 2005 to less than an hour in this operation, with more procedures done in 2006 compared to 2005. The specially developed and designed capture and translocation equipment proved its value under extreme conditions and ensured furthermore that the operation could be conducted without the use of any heavy trucks and equipment. Modifications will now be completed before the remainder of equipment is manufactured. This system will furthermore prove its value as a quick reaction unit. Ultimately it is hoped the enabled colonisation of new areas of suitable black rhino habitat will allow optimised population growth rates and thus further entrench the survival of this endangered subspecies.

Botswana Rhino Relocation & Reintroduction Project

This project, also known as the Mombo Rhino Project, began in 2001 when some 30 white rhino were successfully reintroduced into the Mombo area of the Moremi Game Reserve (in a joint effort by Wilderness Safaris, Wilderness Safaris Wildlife Trust and Botswana's Department of Wildlife), after having been poached out in the 1990s. Since then, the project has concentrated on monitoring and observing the animals, their social and territorial behaviour and their response to the annual Okavango floodwaters, rainfall and other animals in the area.

2006 saw the birth of only one calf to the white rhino population in Moremi. This was the second calf born to a female released at Mombo during November 2002. Her first calf was born at Mombo during May 2004 making the two calves almost two years apart. This is a sure sign that conditions at Mombo are perfect for the white rhino, in that they have security, space, food and water. The monitoring officer, Poster Mpho, is expecting further births at any time, also to females who have previously produced calves in 2004.

During this year most of the original transmitters fitted to the rhinos on release during 2002/3 had used up their batteries. Without the transmitters working, monitoring work became difficult and time consuming. However, our master rhino tracker and monitoring officer, Poster, has had significant success under difficult conditions. This necessitated the planning and action of a project to fit new transmitters to many of the rhino.

Upgraded transmitters were sourced from SIRTRACK of New Zealand, a company specialising in tracking devices. Dr Chris Foggin and Raoul du Toit flew in from Zimbabwe to assist and teach us all the correct methodology for this important exercise. At the time of writing, we have successfully fitted eight transmitters, seven of which are on white rhino and one on a black rhino cow. We continue to follow and attempt to find further animals on which to fit the transmitters.

The new transmitters are proving to be very much more successful than the first set fitted during 2002/3 with a slightly improved range and clearer signal.

The government of Botswana and Project coordinator Map Ives are still busy negotiating with a neighbouring country to bring in up to 20 black rhino to bolster the current Botswana population of only four animals. Although it is early days, we are confident that these rhino will be on their way during winter 2007. If successful, this would bring the wild population in Botswana to 24, the beginnings of a "viable" breeding herd of this highly endangered species.

Brown Hyena
Research Project

The Brown Hyena Research Project studies the hyena population in the Restricted Diamond Area, also known as Sperrgebiet, in Namibia. The study area's habitats are diverse and hence the behavioural ecology of brown hyena clans within this area differs. Coastal brown hyenas are ecologically unique, as they prey on seal pups that are born at mainland seal colonies. Adjoining inland hyenas lack such a localised food source and use larger home ranges in which to forage. Conflict with humans exists mainly along the coast in areas where mining takes place, around towns and along the Sperrgebiet boundary.

GPS technology has been used to determine home range size, habitat use and activity patterns. In conflict areas this data provides information to develop mitigation strategies. Data is delivered in due time by using remote data download technology and researchers are therefore able to give conservation recommendations on a regular basis and on request.

Collared brown hyenas are located with an aircraft, their GPS location is recorded and the field team approaches the location to remotely trigger the download. Up to 1000 GPS positions can be downloaded from a distance of 1 to 2km at one time. This ensures data retrieval without disturbing the animals and without influencing their behaviour.

Camera trapping and direct monitoring of hyena clans at food sources provides data for abundance estimates and changes in population. Camera trapping also provides information about the movement of individual hyenas within their home range.

The Brown Hyena Research Project also continues with its environmental education project and it is planned to expand the project to involve the Luderitz youth.

Diary of a Collaring Project

In May 2006, something strange seemed to be happening in the Peninsula Clan. The animals were meeting regularly near one of the den sites and we suspected that one of the females finally had a litter of cubs again. But nothing – the den stayed empty, but the hyenas showed an odd interest in the area. We decided to fit at least one collar to another clan member to find out what was happening. Ideally we wanted to fit a GPS collar to one of the females, as the chance was greater that she would lead us to the den. We monitored the meeting point for a few nights and finally managed to collar a female, a four-year-old female we called Tosca, who to our delight was lactating! We couldn't believe our luck, as she would definitely lead us to her den. We programmed the GPS collar to record a GPS fix every 20 minutes to be able to track Tosca's movements in detail and to get a better idea about the behaviour of a lactating female.

We did the first data download ten days after we fitted Tosca with the collar. It took us a few days to find her, as she was spending up to 12 hours inside the den, leaving the den site only for a few hours at night (since the other clan members were not providing additional food). What we could see on the data set was incredible...

First we discovered that Tosca moved to a new den about 300 metres to the west of her natal den. About one week later, she moved her cubs to another, well-known den, about 1.5 km to the north-east. We knew that this den had recently been occupied by porcupines; Tosca seemed to dislike the evidence of its previous inhabitants and moved her cubs again in the same night and the following day to another den, also 1.5 km away from the "porcupine" den. The data showed us that she must have at least two cubs, possibly three. Her move to the "porcupine" den showed three quick and direct trips to that den, but the next move just showed two distinct trips between dens. Nevertheless, she walked back a third time towards the "porcupine" den, but stopped half way, circled around a small area and went back to the last den. We assume that one of the cubs actually followed its mother and that Tosca therefore did not need to go back to the "porcupine" den a third time, but that she walked together with the third cub to the new den.

We decided not to approach Tosca too close to her den. Being a young brown hyena, this may possibly be her first litter, so she seems to be very nervous about humans; we therefore will give her all the space and time she needs. Since we can track her movements and find the den sites through the collar, we will begin looking for the cubs to get ID photographs once they are about eight to nine months old and spend time outside the den even when the mom is not around. What an exciting project!

Cape Griffon Vulture Project

The Cape Griffon Vulture is Namibia's most endangered resident bird species, currently numbering fewer than 20. The decline in its population is due to the use of poisons, habitat destruction and dietary deficiencies. Up until now few studies have been done on the role vultures play as part of the Namibian ecosystem, so the project, run by Maria Diekmann and the Rare & Endangered Species Trust (REST) is vital for the continued existence of these birds in Namibia.

Over the past year, the Cape Griffon Vultures that were released in 2005 have been tracked using satellite and visual identification. REST is the first organisation in Africa to fit satellite telemetry to vultures, with four Cape Griffons currently fitted with these in a specially designed harness. The satellite data coming in is much better than anticipated, with approximately 5-8 direct locations a day. Unfortunately two of the birds died soon after release, one having drowned in a farm reservoir and the other of unknown causes. The remaining birds are doing well and those with identification bands are occasionally being spotted around the country. The De Wildt team in South Africa is preparing the next batch of birds for delivery to REST in 2007.

A surprising phenomenon has come to light, where at least one and possibly three of the adult male Cape Griffon Vultures are interbreeding with female White-backed Vultures, something that was not believed possible – it is surmised that the population became so low and with only two females of eight adult birds, the males found mates in their cousin - the White-backed Vulture.

REST's current assessment is that poisons are having the largest single fatal impact on raptors and scavengers. Poison use has become both a socially and economically acceptable option in Namibia, with most land managers using poison as a quick solution to problem animal management. The discontinuation of poison use will only occur when poison use is monitored on a national level and land-use managers are informed of the negative impact of poison use in both the short and long term. This awareness is part of what REST is beginning to achieve through its campaigns, such as the Vulture-Friendly Farm initiative as well as education programmes for schoolchildren.

Overall, the Cape Griffon Vulture population in Namibia seems to be growing, with concurrent success with major farmer and children's awareness campaigns by REST. The future is looking better for Namibia's most endangered bird species.

SOFE (Spirit of Free Enterprise), the bird whose satellite collar the Trust sponsors partially with wildlife presenter Jack Hanna and Namibia Nature Foundation, is doing well although he still appears to be breeding with his White-backed Vulture female. This breeding season the pair moved nests, possibly in response to the predation of a Tawny Eagle on their chicks in the past two years. We managed to track him to his new nest and once the chick was old enough our team went in and collected blood samples from the chick to check DNA and parentage. Within minutes of putting the chick back in the nest, SOFE landed in the nest to check on his chick. Based on the nesting behaviour for months afterwards, it seems that the chick survived to the fledging stage. We hope to see it again to confirm its survival.

Victoria Falls Anti-Poaching Unit

The Victoria Falls Anti-Poaching Unit (VFAPU) is a privately managed anti-poaching unit established by Charles Brightman in 1999. The VFAPU patrols a 50 km² area surrounding the Victoria Falls, deterring poachers and removing snares from this area. VFAPU has worked in close cooperation with the National Parks and Wildlife Management Authority and the Zimbabwe Republic Police, to achieve many successes.

Having started off with three scouts initially, the unit has grown in strength and now has twelve full-time scouts actively patrolling the area. The patrols operate seven days a week, day and/or night, as they endeavour to combat poaching in all its various forms. All operations are in accordance with the Senior Warden, National Parks and Wildlife Management Authority, Zambezi Camp. Mammal poaching is of great concern as the bushmeat market poses one of the greatest threats to Africa's wildlife populations, research showing that this is growing both in terms of volume and value all across Africa.

Whilst the anti-poaching unit activity is largely directed at the removal of snares and the apprehension of mammal poachers, a great deal of time is spent educating and reinforcing the benefits of conserving our natural resources. The conservation message is being brought to local communities through drama groups, who portray this vital message through song, dance and myths.

VFAPU continues to work with the Forestry Commission in finding alternative means for convicted wood carvers to earn a living other than destroying indigenous tree species such as African Ebony (Diospyros mespiliformis), and the Mukwa (Pterocarpus angolensis), the latter species under particular threat locally.

VFAPU is under no illusion that it will completely stop poaching but with the support of various stakeholders, companies, hotels, lodges and individuals it has been able to achieve great successes to date. Since the unit's establishment, over 17 500 wire snares have been removed from the operational area and more than 280 poachers have been arrested.

Children in the Wilderness

For Children in the Wilderness, 2006 was yet another fulfilling and wonderful year for children and staff alike. Now in its sixth year of operation, this initiative continues to run its highly successful programmes in Wilderness Safaris camps that close to paying guests in Botswana, Namibia, Malawi, South Africa and now North Island in the Seychelles. In addition, follow-up camps and programmes have begun in Botswana, Namibia and Malawi which help to keep inspiring and teaching former participants of the programme.

Camps

Botswana hosted 96 children in Dec 2006/ Jan 2007, over six separate camps, where each camp operated a five-night programme.

Malawi hosted four camps in January 2007 for 122 children. Each programme ran for five nights and six days.

Namibia hosted three camps: two at Kulala Wilderness Camp, involving 24 children in each, and one follow-up camp at Palmwag Rhino Camp with 30 older children attending – a total of 78 participants.

South Africa hosted a total of 45 children at Pafuri for the second year running.

Seychelles ran its first Children in the Wilderness programme at North Island in June 2006, hosting 36 children.

In total Children in the Wilderness has hosted 377 children and a total of 1640 children-in-camp nights during the 2006/2007 season.

Country Reports:

Botswana

Children in the Wilderness Botswana had a very successful 2006 camp season, with camps taking place in Kaparota in August (where CITW was one of the 12 BBC World Challenge finalists) and hosted by Ngamiland Adventure Safaris in Jacana Camp in November and December. The children were selected from Mathiba Memorial, Tubu, Seronga, Gunotsoga Beetsha and Gudigwa Primary Schools. 16 children also came from Bana Ba Letsatsi, a day-care facility based in Maun that cares for street children, all of whom have histories of neglect and often sexual abuse and/or HIV infection.

Children in the Wilderness Botswana has

seen a few changes over the last year, including the appointment of three full-time staff members, new child selection criteria, recruitment processes, volunteer criteria and selection, and changes in our daily camp schedule – all these ensuring more tangible outcomes.

2006 saw the first follow-up programme being hosted in Maun, with children who had visited Jacana in 2005 participating. The bi-monthly follow-ups build on the learning experience of the initial camp session, providing mentoring and support through regular contact, and allowing mentors to evaluate the impact of the programme. Each follow-up visit has a theme, the first one being "Who Am I?" which focused on the children's vision of their own future and the attainment of their personal goals.

Boineelo, Mentor-in-Training, 2006 camp sessions from Tubu village:

"I never knew how beautiful my country was, that is why I feel that this programme is very important – by exposing these children to their natural heritage, they too will realise just how beautiful this country is".

Malawi

Children in the Wilderness Malawi hosted two camps in December 2006, with a total of 50 participants. 24 of these children were sponsored by CITW Malawi while the remaining 26 were funded by Baylor International Paediatric AIDS Initiative, a collaborating partner. Each camp was conducted over five days and six nights at Mvuu Camp. In January 2007 CITW Malawi hosted another three camps with a total of 72 children at Chintheche Camp. CITW Malawi therefore managed to host 122 children in total over the 2006-2007 season.

Namibia

Highlights for Children in the Wilderness Namibia for 2006 included the roll-out of a follow-up programme, hosting successful media/sponsor appreciation events, conducting staff development workshops and receiving increased support from local sponsors and the Ministry of Gender Equality and Child Welfare.

Two camps were run at Kulala Wilderness Camp, with activities such as "the Moringa walk" where children learned about the wonders of the Namib Desert and its small, desert-adapted plants and creatures, took part in health and nutrition activities and a morning workshop devoted to HIV/AIDS. The groups, mostly from the remote southern part of Namibia, participated enthusiastically and not even the summer heat could dampened their enthusiasm as they ran up and rolled down Big Mamma Dune in sand-covered bodies and smiles of delight.

A testament to the success of the programme comes in the form of Franco Morao, our assistant camp director. Franco is the youngest member of the team and started out as a participant of Children in the Wilderness a few years ago – now, over the past two years he has developed into a skilled and very talented director, completing the circle.

This year saw the first follow-up camp run in Namibia, aimed at older children and focusing on job opportunities and preparation for some of the challenges they face when they leave school. While keeping many of the traditions that make this programme unique, a wider range of new topics was introduced, including income-generating craft projects, vocational counselling and more in-depth conservation projects.

A successful partnership was implemented with an opportunity for two children to attend the Australian OzQuest Expedition, a non-profit programme that combines adventure travel with volunteer community projects for young Australians. This year the group built water cribs to reduce in the human-elephant conflict in Tsumkwe area, completed a Garden Horticultural project in Kulala Reserve and completed adventurous trekking in Palmwag – very much enjoyed by the two local youngsters.

North Island

North Island in the Seychelles is the ultimate in 'barefoot luxury.' But for a few days in June, the Island closed its doors to paying guests to give a group of 36 disadvantaged Seychellois children the time of their lives at the first Children in the Wilderness camp.

North Island staff teamed up with The National Council for Children, an organisation on Mahé, to run the programme, the only project of its kind in the Seychelles. The mission statement was "through love, commitment and exposure to our environment make these broken children whole again" and as a councillor said, "it was 3½ days filled with laughter, the most incredible energy and endless learning for the kids and all involved."

"I thank you with love and happiness. Thank you for keeping me safe from danger and sharing your kindness with me. I am glad for me the friends I made on this island."

South Africa

Children in the Wilderness took place for the second time at Pafuri Camp in the Kruger National Park in December 2006. There was an exceptional atmosphere, as the young participants were members of the Makuleke people, owners of the Makuleke Concession where Pafuri Camp is located.

The programme, run jointly by Pafuri staff and Active Education, began with the entire Pafuri staff singing a welcome to the children, who soon were singing themselves as they went from one activity to the next. These included games, swimming, and racing, musical chairs, making their own instruments out of shoeboxes and tins – and then giving a 'symphony' concert with these! The educational aspect was built into the games and included discussions on abuse, HIV/AIDS and nutrition. Of course the highlight for many youngsters was the game drive. Every animal, bird or tree was industriously marked off on species lists or laboriously written down in increasingly well-thumbed notebooks.

Hwange Anti-Poaching Project

The combined efforts and participation of Wilderness Safaris' staff and National Parks and Wildlife Authorities in supporting and maintaining an anti-poaching camp, assisting with anti-poaching raids, raking concessions to remove and collect wire snares and the subsequent de-snaring and treating of animals inflicted and wounded by snares has become a more tangible process in sustaining and protecting the wildlife of south eastern Hwange National Park. During the course of the year, the Wilderness Animal Rescue Team darted and successfully de-snared five elephants and one waterbuck within Wilderness Safaris' concessions in Hwange National Park.

One account:

"A female waterbuck was seen wandering rather uncomfortably in front of Makalolo Plains Camp with a wire noose around her neck, from which a longer wire hung and dragged along on the ground behind her back legs. The silver wire trailing behind her told how she had struggled and escaped being trapped in a poacher's snare, but our fears were that if she continued to stand on the wire tail, she would either trip and hurt herself or succeed in tightening the noose around her neck, resulting in her own strangulation.

Acting quickly, we prepared the dart gun with the necessary anaesthetic drugs and drove out to where the resident herd of waterbuck were grazing, hoping to get a clear shot at the inflicted waterbuck. This proved to be a rather trying task, as other members of the herd seemed to form a barricade around her and would have surely intercepted the dart meant for our snared friend. Eventually, the opportune moment arrived and the dart was aimed at the convenient 'target' around her tail, penetrating her rump successfully and sending her scampering across the plains in a panic. She broke away from her herd and trotted amongst an area of thick Terminalia scrubland, trying to hide herself amongst the small trees and branches. In her haste however, the dart with which she had been shot became dislodged and dropped off! Uncertain whether the drug had taken effect, we managed to follow her as she scurried amongst the scrubland, keeping track of the induction time and watching as she tried valiantly to fight against the narcotic. After 10 minutes the drug finally took effect, as the waterbuck became woozy and disorientated. As luck would have it, she ran out of the bush and fell into the middle of the road. Certain that she was immobilised, we approached her and were able to soothe her by splashing cold water all over her hot, furry body. We cut and removed the wire snare easily, glad to discover that no real damage had been caused and at the same time we injected her ear with the reversal drug, which took five minutes to work. She stood up, a little wobbly on her feet and bounded off into the bush. We were delighted to find her two days later relaxing beneath the boardwalks of Makalolo, reunited with her herd.

However, not all our stories can be as cheerful, as our anti-poaching team will bear witness to. With the lack of a designated anti-poaching vehicle, it is difficult to conduct raids and to sweep for snares as often as the team would like to, since they are only able to do this when a game drive vehicle can be spared from its regular activities."

In the course of the year, the anti-poaching team have collected numerous wire snares and in most raids, the poachers and their dogs were apprehended and arrested. The local team are passionate about this project and will endeavour to continue this work to the best of their abilities.

Education Bursary

In continuing to play a vital role in funding environmental education across southern Africa, Wilderness Safaris Wildlife Trust funds bursaries for students either at graduate or post graduate level in the wildlife and environmental fields.

Gayle Pederson, the recipient of our Bursary Fund, is registered as a student at Stellenbosch University, South Africa, on the programme MSc Conservation Ecology as of January 2006, under the supervision of Dr. Alison Leslie. Prof. Norman Owen-Smith, based at the University of the Witwatersrand, Johannesburg, is the co-supervisor. The aim of her MSc thesis is to observe and monitor the feeding ecology and behaviour of six reintroduced white rhino to the Makuleke region of the Kruger National Park. (See the Makuleke Large Mammal Reintroduction Project.)

Her project title is: The habitat preference and behaviour of reintroduced white rhinoceros, Ceratotherium simum simum, in the northern Kruger National Park. Particular attention has been paid to habitat use, diet selection and establishment of territory as well as an assessment of the long-term benefits of this megaherbivore's presence.

Pederson's interim report states that "after nine months of data collection our understanding of these rhinos has increased substantially. The field season to date has resulted in a collection of fascinating data on the movements and landscape preferences of the rhino as the seasons change. The suitability of the habitat will be fully assessed and analysed in detail on the completion of the field season in April 2007."

Hwange Game Water Supply

During the dry season in Hwange National Park, water sources become scarce. Some 57 boreholes therefore are used to pump out the precious liquid from deep underground in order to sustain the wildlife in the area.

The rainy season of the latter part of 2005 and early 2006 had such good rains that this enabled us to rest the pumps for the first few months of 2006 and allow them a well deserved breather after working almost throughout 2005 to withstand the hardships of a drought earlier that year.

We were able to build new concrete slabs for most of our Lister engines, preparing them for the dry season which lay ahead. Waterholes were teeming with an abundant flow when the engines were switched back on, attracting herds of elephant and buffalo, nonchalant kudu and zebra and encouraging lion to drink their fill at the pans.

Some waterholes in our concessions are still reliant on the older Dipco model engines, which are maintained, despite the difficulties of obtaining spare parts for them. We are also experimenting with more energy efficient windmills. The good rapport between Wilderness Safaris and National Parks and Wildlife Authorities in Hwange National Park allows us to borrow from each other, in order to sustain and conserve our wildlife – together.

Kunene Lion Project

Namibia supports a unique population of desert-adapted lions that survive in the harsh Namib Desert. This "desert lion" is highly valued in Namibia, ecologically, aesthetically and financially, as a prominent feature of the growing tourism industry and Namibia has received international recognition for its progressive and successful conservation efforts. However, conflict between the Kunene lions and the local people is growing too, as lions prey on domestic livestock with increasing regularity. The long-term conservation of the Kunene lions therefore depends on the design and implementation of sound and effective mechanisms to manage human-lion conflicts.

The aim of the Kunene Lion Project is therefore to acquire an improved understanding of the ecology of these lions. This knowledge will help in the successful conservation of the species, which will benefit both the tourism industry and the local communities that generally bear the costs of living with these predators. Both lions and people will benefit from the project.

An intensive research project began in 1999 with the following aims: collect sound ecological data, address human-lion conflicts, and develop a National Lion Conservation Strategy. Methods used include tracking spoor, locating, capturing and marking individual lions. Since November 1999 a total of 36 lions have been radio-collared and 87 lions marked or individually identifiable. Subsequent research has yielded valuable results:

- There are currently eight distinct groups/units of lions, consisting of prides, sub-groups, and nomadic individuals, in the Kunene population.
- Adult lionesses in the Kunene that belong to the same group or pride frequently spend long periods apart. Such long separations are unusual in lion social behaviour. Between January 2000 and January 2003, there are 14 records of individual lionesses spending more than one month apart, something that has not previously been documented for lions. It is suggested that the unique "fission-fusion" grouping patterns of Kunene lionesses is a behavioural adaptation to the demanding conditions imposed by the desert habitat.
- Lions were observed with prey species that they had killed in 10% of observations. Gemsbok and Hartmann's zebra were the two most important prey species, followed by springbok and ostrich. Livestock was killed by lions on one occasion, and despite fears of the local people, form an insignificant part of their diet.
- The areas occupied by the Kunene lions are the largest home ranges ever recorded for the species.

The desert-adapted and coastal roaming lions of Namibia dwindled to alarmingly low numbers after a low rainfall period in the 1980s when many were killed by pastoralists. Improved rainfall patterns during the 1990s and 2000s, and successful conservation programmes, such as the emergence of Communal Conservancies, have seen a significant increase in wildlife numbers. The study's data on the population status and demography of lions are in line with, and complement, the trends and recent conservation achievements. Kunene lions live in the most rugged and arid of environments, yet they have demonstrated remarkable success, with high survivorship, rapid growth rates, and dispersal. Conflict between lions and the local communities remains the most important ecological, conservation, and economic problem.... The study, and its results, is aimed at providing a sound technical and ecological foundation for the development and implementation of long-term and successful conservation strategies.

Makuleke Large Mammal Reintroduction Project

In 2005, six white rhino were moved from the central district of the Kruger National Park to the Makuleke Concession in the far north. This constituted the first phase of the Makuleke Large Mammal Reintroduction Project. In 2006, the project moved into its second phase, that of monitoring the animals to gain an understanding of the local ecology of the white rhino in an area from which it has been absent for more than 120 years, and in so doing to provide this information to the broader conservation community. This involves a year of fieldwork, monitoring rhino movements, feeding habits and habitat preferences over the changes in season.

The project is currently halfway through the second phase, and after nine months of data collection our understanding of these rhino has increased substantially. The field work to date has resulted in a collection of fascinating data on the movements and landscape preferences of the rhino as the seasons change. The suitability of the habitat will be fully assessed and analysed in detail on the completion of the field season in April 2007.

As Pafuri has a reputation for low annual rainfall and vegetation most suited to browsers, there was initially some speculation as to whether white rhino – being grazers – would choose to remain in their new habitat. However, after nearly a year and a half and two dry seasons since reintroduction, they have remained and were recently classified after a very dry period as being 'in surprisingly good condition' by an expert in the field.

The preliminary data have shown the rhino, particularly sub-adults, to have large ranging areas, and a territory size that can be expected in a large area with little or no competition and a low density of other rhino. The calf that was born in January 2006 was successfully identified months later as a male and is developing at an excellent rate.

November 2006 has seen the start of the much-needed rains to Pafuri and a flush of green leaves and new shoots have appeared, much to the pleasure of the grazers and browsers within the concession. The rain has also resulted in a number of temporary new waterholes and wallows, of which the rhino are taking advantage. This change of season has seen all six adult rhino coming together in the sandveld just north of the Luvuvhu River where there is a large amount of water, new green grasses and ample cool, shaded sand in which to rest.

The last few months of data collection had the aim of accumulating as much information as possible on the grass species being consumed to compare to the grasses the animals choose not to eat. This information, added to the data on their seasonal movements and landscape preferences will improve the understanding and future management requirements of white rhino in other areas, as well as some other species to be potentially introduced to Pafuri in the future. This increased level of understanding can only improve the future of the Pafuri rhino in their new home and their likelihood of establishing a viewable breeding nucleus with the potential to range further into the Greater Limpopo Transfrontier Park.

Since the employment of an experienced tracker in May 2006 the rhino have been tracked on foot daily, with the aid of radio telemetry, for two weeks of every month since the start of June. The remaining two weeks were utilised for vehicle track checks and radio telemetry signal checks. Unfortunately all but one of the transponders had failed by April 2006 so we are predominantly relying on spoor in order to locate the animals on a daily basis. Despite the setbacks, a substantial database of rhino locations has been compiled, dating back to March 2006. This information will provide useful insight into the landscape types that the rhinos have chosen as home ranges and territories, as well as enabling us to compare their choices to the white rhinos in southern and central Kruger National Park.

Maputaland Sea Turtle Project

From as early as 1961 there has been awareness of dwindling sea turtle populations on the Maputaland coast, but a 1963 initiative set up by the Natal Parks Board (now Ezemvelo KZN Wildlife) and Dr George Hughes set out to protect and monitor the 56km stretch of beach now known as the Maputaland Marine Reserve. After financial difficulties threatened to disable the project, donations made from the World Wildlife Fund, Wilderness Safaris Wildlife Trust, and Rocktail Bay Lodge were able to save the monitoring process along the beaches.

The project is now in its 44th year, making it one of the longest and most successful running turtle research projects in the world and Rocktail Bay and the Wilderness Trust continue to provide funding and manpower to assist in the project.

Monitoring begins annually on the 15th of October and runs every night of the summer season until the 15th of March. Rocktail Bay researchers and monitors patrol a 25km stretch of beach that is divided by beacons set up a mile apart – in this way turtles spotted can be marked as being at the point of the nearest beacon, providing accurate locations of the nests. Patrols take place only at night and at low tide at slow speed so as to have as little impact as possible on the fragile ecosystem. Red-filtered flashlights are used for viewing turtles for minimal optical interference.

Guests at Rocktail Bay can join a trained Turtle Guide on these patrols, sharing the magical moment of a Leatherback or Loggerhead Turtle making her way up the beach to lay her eggs, a link in a million-year legacy. The positive impact this sight has extends far abroad as an awareness of the precarious plight of these fascinating animals is created. Linked to this an Adopt a Turtle Project has been initiated by Rocktail Bay Lodge in conjunction with the Wilderness Safaris Wildlife Trust, which generates much-needed funds for the project from concerned individuals. A staggering 81 turtles have been adopted from June 2006 until 13th February 2007. A monthly concession fee payable by Rocktail Bay Lodge allows nightly patrols by vehicle and by foot in the form of Turtle Scouts who walk the beaches and guard the nesting turtles and turtle nests from poaching.

This season's results (from 15 October 2006 to 15 March 2007) have found 304 Loggerhead nesting turtles with 166 'false crawls' – a term given for turtles that make their way up the beach but for some reason (such as less than optimal conditions of the sand at that spot) do not lay their eggs. A total of 98 Leatherback Turtles made their way up our beach with only 9 false crawls. These figures show similar results to the 2005/2006 season with an increase in the Loggerhead Turtle numbers. The high number of Loggerhead Turtle false crawls was attributed to large amounts of sand deposited on the beach during neap tides which created 2-3 metre banks along certain areas of the research area, preventing the turtles from moving beyond the high water mark.

Overall, the monitors were able to successfully tag 79 individuals and inserted 33 identifying microchips. The microchips, recently introduced, serve as a means of identifying turtles which have lost tags in the ocean and will hopefully contribute to the collection of longer term data. The numbers for the season 2006-2007 were therefore a total of 403 nesting turtles of both species and 576 turtle tracks representing emergences onto the beach from the ocean. Twelve turtles that had been recorded in previous seasons were seen again, the oldest being two Loggerheads tagged 17 years ago: one tagged previously in the 1988/1989 season and the other in the 1989/1990, sporting AA and BB tags respectively. Predation along the coast proved to be high in the beginning of the season – a loss rate of almost 50% in the first month, with a number of nests lost to honey badgers, crabs, genets and side-striped jackals patrolling the beaches at night in search of newly laid nests.

Fresh impetus for the project along the 25km of beach patrolled by Rocktail Bay Lodge has been provided by MSC researcher Chris Boyes from the University of Stellenbosch. His main focus is a study of the nesting ecology of the Leatherback Turtle and includes aspects such as egg counting, predation evaluation, pivotal nest temperatures, inter-nesting intervals and hatchling success rate by means of nest excavations. Chris's work has proved to be a vital component of the project.

Judging by the data from this and previous seasons, researchers are confident that the Loggerhead numbers on this coastline are on the increase and it seems the Leatherback numbers are stable, all in all great news.

A big thank you to all involved in this year's season, guides, monitors and managers, and a special thank you to all who adopted a turtle this past season and seasons past. Your funds contribute to the well-being of the phenomenal creatures that have survived, against all odds, to return to the beaches on which they nested to continue the cycle of life.

Mkambati
School Programmes

In keeping with the Trust's mandate to assist in educating disadvantaged African youth, it encourages interested donors to 'adopt' a school, sponsoring the upliftment of the school and its facilities. A combination of donations from the Trust and private sponsors has seen significant improvements in two such schools in the Pondoland area in South Africa's Eastern Cape Province. The first is the Mkambati School which continues to be improved; the second – the Zimisele School Project was completed last year.

Additional funds from private individuals through the Trust have allowed these schools to be completed with regard to buildings and equipment. At present, the day-to-day operational and running expenses are covered on a yearly basis.

Mkambati School - Sponsored by Bruna Zacks

The Mkambati School began in 1996 as a pre-school. Over time, the school grew, as did the demand for a higher level of education for the children in the region and it is now a recognised Junior Secondary School, accepting children up to 14 years old. There are over 50 children in a classroom, and a total of four qualified teachers who are completely dedicated to the children they teach. Under such difficult circumstances, these teachers do an incredible job.

Through the kind sponsorship of family and friends of Bruna Zacks and the modest school fees that some pupils can afford to pay, the community has continued with the construction of the new Mkambati Junior School in 2004 and 2005. Finally, by June 2005, the Junior School reached the final stages of completion of Phase I: the roof of the school and the plastering of one of the classrooms are complete and the second classroom is in the process of being plastered. In 2006, the last building phase was completed. School desks were delivered to the school late last year, creating much excitement amongst students and teachers alike.

The school comprises two buildings (five classrooms), allowing for the school to expand in order to cater for the growing demand in the area.

Namibian Elephant and Giraffe Project

In almost every area in which elephants live in Africa, the issue of long-term management of these populations has become a challenge; confrontations with humans are increasing as both human and elephant numbers grow.

The Namibian Elephant and Giraffe Trust (NEGT) investigates the seasonal movement, seasonal distribution, behaviour, genetics and social interactions of the elephants in the Kunene and Omusati Regions, with the aim of contributing to the long-term conservation of elephants in north and north-west Namibia. Further, the project aims to disseminate scientifically-gathered data on elephants to all stakeholders – local, regional and national decision-makers – to ensure appropriate management plans for the elephants. Elephants are becoming increasingly important income generators for local conservancies and information is required to guide decision-making, particularly relating to consumptive use. The revenue generated from consumptive and non-consumptive tourism has the potential to contribute long-term to rural livelihoods.

The current phase, focusing on the collection of elephant identification, movement and monitoring data is an extension of the Namibian Ministry of Environment and Tourism (MET) policy related to the consumptive utilisation of resources, and ongoing Community-Based Natural Resource Management (CBNRM) initiatives. Since May 2005, NEGT has undertaken a detailed study of the elephants in the Omusati Region (north of Etosha), where it functions as a collaborative research effort between NEGT, MET and the Uukwuluudhi Conservancy.

During the last twelve months, the researchers have undertaken research on the social behaviour, movement and diurnal activities of the elephants in the research area. The researchers have undertaken ten field trips, including one collaring exercise in the western section of the Hoanib River, have attended two community meetings and have been instrumental in the involvement of community game guards in various aspects of the research. Three additional field trips were undertaken, during which consultations were made with community and conservancy members.

The total of GPS monitored elephants in the Kunene and Omusati Region is now ten individuals, with one new elephant (Western Kunene Male (WKM)-14) collared in the western Hoanib Catchment in February 2006. Unfortunately, by the end of December 2006, four of these collars had failed including WKM-14's collar. However, this is to be expected, as some of the collars have now been functioning for three years. It is hoped to replace four collars in October 2007.

Above average rainfalls were experienced in the west of Namibia during the 2006 wet season and have affected the movement and home ranges of some of the collared elephants. In particular, Eastern Kunene Male (EKM)-03 and Eastern Kunene Male (EKM)-06 undertook movements that have not previously been observed during the last four years of monitoring.

Other results based on monitoring all ten elephants include:

Diurnal activity: The seasonal activity of behaviours varies considerably. The most significant shift occurs in the time spent walking and feeding, with a higher percentage of the time spent feeding in the wet and cold season and the amount of time spent resting during the hot dry season; however social activities and water activities decrease during the same period.

Family/Bond Group Studies: There are 38 adult females, sub-adults and juvenile elephants, in seven family units (between three and ten individuals) in the western section of the research area. It would appear that the traditional herd structure described by previous researchers does not apply in desert-dwelling elephants of north-west Namibia, as there appears to very little social interaction between the various groups.

Nyae Nyae Human-Elephant Conflict Research Project

Conflicts between elephants and people are occurring with increasing frequency in Africa, taking place particularly, it seems, in rural areas on the border of protected regions and specifically at waterholes. The Nyae Nyae Human-Elephant Conflict Research Project was developed to help develop effective strategies to reduce human-elephant conflicts in the Nyae Nyae Conservancy, where the Ju/'hoansi people live.

The aim of the project is to identify the behavioural, environmental and anthropogenic factors influencing such conflicts in this part of Namibia as a basis for sustainable development and conservation of elephants.

After the main human-elephant conflict research study in 2005, 2006 dealt with feedback and implementation of results. Two field trips were undertaken in the Nyae Nyae Conservancy to discuss the findings with the Conservancy leaders and implement the results of the research.

One of the key findings of the research was that in order to reduce human-elephant conflicts in Nyae Nyae Conservancy and Khaudum National Park, drinking points for elephants should be located further from villages than they are at present. It appeared that the presence of cement cribs rather than muddy dams went some way towards reducing conflicts because elephants show a preference for clean drinking water, which may be why they come into villages seeking clean water from tanks and pipes.

In December, in a partnership with the Ministry of Environment and Tourism of Namibia (Tsumkwe), OzQuest Australia and the Nyae Nyae Conservancy, two cement cribs were built at two high-conflict sites, at the Tjokwe and Xamsa villages. Both village chiefs welcomed the building projects and bags of cement and transport were donated to the project.

The building was undertaken by two groups of ten young Australian volunteers from OzQuest and two groups of five Ju/'hoan volunteers, arranged by funding obtained by Anders Wengen and led by staff of the Ministry of Environment and Tourism on the ground, in particular lead crib builder Shikongo, warden Dries Alberts and ranger Doyo Moyo. The Australians and Namibians worked closely together to collect rocks, make cement and build walls in a positive interchange of cultures that stimulated friendship and intercultural education. Overall, the building was a success and a rewarding experience for all involved. Plans are underway for further crib building in the future and Conservancy warden, Dries Alberts, has advised that up to 30 cribs may be needed in Nyae Nyae Conservancy and Khaudum National Park.

Feedback Field Trip, August 2006

The Honourable Chief Bobo and Kievet, Chairman of the Nyae Nyae Conservancy, were each presented with a copy of the report, which was then discussed with each of them with the aid of a local translator. Both leaders expressed their appreciation for the study and encouraged the implementation of results, specifically the building of cribs to provide clean water for elephants away from villages.

Kievet was pleased to receive feedback and to hear that the project was continuing, as the conflict with the growing elephant population in the area was one of his greatest concerns. There seems to be much scope for further crib building in the future.

Also in August 150 copies of the colour children's' book, "An Elephant's Tale" (Matson, Lalley & Kohl, 2005) were delivered to the four operational village schools: Den/ui, //Auru, //Xa/hoba and Baraka. This book was used as an educational tool when the project partnered with the Children in the Wilderness programme in December 2005 with 12 San children from the Nyae Nyae Conservancy taking part at Palmwag Rhino Camp. Trine Strom from the Namibian Association of Norway, based in Tsumkwe, has arranged for the book to be translated into Ju/'hoansi and printed in 2007. Feedback from teachers on the book has been extremely positive.

This field trip was funded by the Wilderness Trust, the Rufford Whitley Laing Foundation and the Namibia Nature Foundation and other organisations.

Shadow Hunter Project *(Black Mongoose)*

The black mongoose is considered the largest endemic carnivore in Namibia and possibly a separate species to the slender mongoose. This project aims to verify its taxonomic and conservation status by ascertaining the genetic relationship between the black, slender and small grey mongoose, investigating its distribution and dispersal in the Erongo Mountains and training Namibian students up on this species.

Principle field researcher, Augustinus Mbangu, trained and assisted by Ms Jana Jeglinski, was able to collect black mongoose scats for a diet analysis study and investigate the various field factors that could influence trapping of the black mongoose. In 2006, three mongooses were trapped (one male and two females) and genetic samples from these sent to Dr Veron at the National Museum of Natural History, Paris, for analysis. DNA will be extracted from the samples, amplified and sequenced in order to produce trees of relatedness; this may take many months.

An important goal of the Project is to help with capacity building amongst Namibian conservation scientists. The project was able to support a small staff this year who received an exciting and innovative training experience.

Simonga Village Projects

Since 2000, The River Club has carried out a range of projects in the nearby Simonga Village, funded by the generous donations of Lodge guests in conjunction with the Trust. Projects to date have focused particularly on assisting women and children, and now include those that will help all inhabitants generate an income. Focus areas are sanitation, health, education and income generation.

Sanitation: A project to install distribution points for running water in the village was completed in September 2006. This involved the sinking of a borehole and installing a pump, pipes and storage tanks, thus providing 30 000 litres of water per day to the villagers. This is in marked contrast to the single well with hand pump available in the past, where people had to wait in long queues and carry water large distances. Now with various taps placed around the village, children can spend more time doing schoolwork and adults can concentrate on employment and other constructive accomplishments.

Health and Hygiene: The foundation, walls and roof of a health clinic is currently being constructed, building taking place as donations are received. This exciting project will provide necessary medical assistance to the people of Simonga Village who currently need to travel 22km to Livingstone for treatment. In addition, there is a real need for the construction of a suitable number and quality of toilets for the school.

Education: 49 children are currently being sponsored by Lodge guests and the Trust through different levels of education, including tertiary education. Teachers are also being sponsored, both in terms of salaries as well as enabling them to receive the necessary qualifications. A school library has been built as well as a canteen (with assistance from Sun International). Ongoing maintenance work is being done, including repairs and making of desks, doors and cupboards. The school continues to receive donated books from guests staying at The River Club.

Income generation: The innovative Elephant Pepper Development Trust project, where farmers plant a chilli patch around their food crops continues. The chillies are used both to prevent elephants destroying food crops and to earn money (chillies are sold at $1 per kg). This helps more farmers protect their food crops and generate income. A donation of sewing machines enabled the inception of a woman's group who are currently learning to use these to generate income.

Another idea being considered is the acquisition of a solar cooker, a simple invention that uses solar heat instead of firewood with which to heat and cook meals, to be used by Simonga inhabitants.

Contributions coming through the Trust will assist it in its collaboration with The River Club so as to continue to finance the projects currently in progress, as well as to begin new ones throughout the coming year.

Completed Projects

Bat-eared Fox Project

This project, beginning in 2000, studied the habitat, ecology, breeding and feeding habits of the bat-eared fox on the Kulala Wilderness Reserve. It also focused on the education of farmers and communities about the differences between an aardwolf (an insectivorous small carnivore) and a hyaena. Farmers often kill aardwolves, mistakenly regarding them as threats to their livestock. It is our hope that education will be a way forward in the conservation of this rare small carnivore.

Linyanti Elephant Impact Study

The study confirmed that loss rates of large tree species in the Linyanti vary considerably from year to year – regardless of whether this is as a result of local climatic variation or factors such as elephant browsing – but importantly also emphasises that these loss rates have high variability over longer time periods as well. Additional and longer-term studies in the region are needed to understand exactly what impact the elephants have on the system.

Monitoring of Bird Populations at Lake Ngami

Bird counts were done twice a week between April and May 2004, after which the Lake began to fill with water. The Project took note of both numbers and species and costs were shared between the Trust and Wetlands International.

Skeleton Coast Lichen Project

The Lichen Research Project conducted a ground survey of all lichen communities in a 3 000-km² concession of the Skeleton Coast Park in the northern Namib Desert. It assessed the long-term impacts of human activity on lichens and the Namib Desert ecosystem as a whole. The project contributed greatly to the management plan of the Skeleton Coast Park as well as an increased awareness of the role played by lichen in stabilising fragile desert soil and the threat that human activities present to this delicate environment.

Zimisele School Project - Sponsored by the Ultimate Travel Company - Completed

The Zimisele school project was initiated to improve the schooling conditions of the children in the Mkambati community. Zimisele School is located in the Mtshayelo Village and at the moment has 350 learners and 6 teachers with the school buildings in appalling conditions. Ultimate Travel Company UK sponsored the project to erect an additional classroom at the school. In the past the learners were sharing classrooms between the grades, making learning and concentration very difficult. The classroom has just been completed and this will allow the learners to have individual classrooms per grade, improving the quality of education at the school.

Mana Pools Tree Conservation Project

Mana Pools National Park, on the banks of the Zambezi River, has one of the best examples of alluvial terracing and floodplain vegetation in southern Africa. Its views are striking and evocative: tall albida trees (Faidherbia albida, known also as the Ana tree), open floodplains and the mountains of the Rift Valley behind. Recently, the magnificent albidas have been declining in numbers and it was speculated that this was the result of the elephant population feeding heavily on these trees, and high numbers of large mammals destroying the young specimens as well. It may be part of a natural cycle, but there is concern that this is either caused or exacerbated by the fact that the Zambezi River no longer floods the way it used to – either because of the presence of Lake Kariba's dam wall, or due to the unusually high density of certain large mammals, such as elephant and impala.

This experimental project attempted to "protect" the trees from further damage by wrapping wire mesh around their trunks. Hard-hit trees were identified and wrapped with wire in the hope of prolonging their lives; the project was also aimed at researching the long-term effects of such an action.

TFCA Elephant Populations in the Okavango

Project Name: Ecology, Population Structure and Movements of Elephant Populations in the Okavango-Upper Zambezi Transfrontier Conservation Area

Working in collaboration with the Botswana Department of Wildlife and National Parks (DWNP) and other partners, this study provided vital information on the abundance, distribution, population structure, habitat needs, and movements of elephants in northern Botswana, and particularly the transboundary movements of elephants within the Okavango-Upper Zambezi Transfrontier Conservation Area (OUZTFCA). This data, along with a digital land-cover map and a spatial elephant population model will hopefully provide wildlife managers with tools for developing an elephant management programme for Botswana as well as for the larger Transfrontier Conservation Area.

Chitabe Fire Ecology Research Project

About 10% of the Okavango Delta burns annually, caused either by lightning or people. Small mammals such as mice or gerbils are most directly affected by fire; these animals eat mainly seeds and insects and are, in turn, important prey items for over 100 species of mammalian carnivores, birds and reptiles in the Delta. Mila Plavsic of Cambridge University, with the support of Okavango Wilderness Safaris and hosted by Chitabe Camp, studied the impacts of fire on the small mammal populations in the Delta.

The study team live-trapped small mammals of six grassland species in the area once a month, each animal marked with a microchip and released so that populations could be monitored both before and after a fire. The results showed that the immediate effect of a fire is drastic, with complete emigration from the area; not one of the study individuals that had been present before were ever recaptured afterwards. However, within a few months, new individuals of some of the species began to arrive, with some species recovering quicker than others.

Lowveld Wild Dog Project

The Lowveld Wild Dog Project took place in the Savé Valley Conservancy (SVC) in the south-east lowveld of Zimbabwe, looking at the distribution and status of the species – specifically outside of protected areas.

Established in 1996, the Lowveld Wild Dog Project (LWDP) initially focused on investigating the behaviour and ecology of the African wild dog population in an environment where the densities of lion and spotted hyaena were low. The two species are wild dogs' two main competitors and the newly-formed Savé Valley Conservancy provided an ideal study site as it had a healthy wild dog population but very low densities of lion and spotted hyaena.

While the main focus was on the field research, much awareness and education was done with the ranching community within the region and also with the local African communities. This work did a lot to improve the image of wild dogs and it is important work that continues today.

The challenges facing wild dog conservation have changed since the project began, moving away from researching and protecting populations in large, state-protected areas to looking more intensely at the viability of wild dog populations outside of these areas.

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Dedication

In memory of Nico van der Merwe, who tragically lost his life while cycling through the Namib Desert to raise money for Children in the Wilderness. He was a dedicated family man and conservationist, courageous camp manager and concession manager, a great leader and listener with an incredibly positive, strong, and resilient outlook on life that affected everyone he worked with.

Donations to the Trust

To make a donation to the Wilderness Trust, please make use of one of the options below:

Botswana:

For convenience we have two bank accounts in Botswana - one for USD and one for BWP payments. Please note that the bank details remain the same for all transactions, it is merely the account number (as shown below) which differs according to the currency being paid to us.

Name of Bank:	Stanbic Bank Botswana	
Branch:	Fairground Gabarone	
Branch Computer Code:	1011	
Account Name:	Wilderness Safaris Wildlife Trust	
Account Type:	Current	
Swift Code:	UBBLBWGX	
BWP Account Number:	014 000 669 7500	- send BWP payments to this account only
USD Account Number:	022 200 697 500	- send USD payments to this account only

South Africa:

If you wish to send a wire transfer in South African Rands you may use the following bank account:

Name of Bank:	Standard Bank Of South Africa
Branch:	Rivonia
Account Name:	Wilderness Safaris Wildlife Trust
Account Number:	022 148 7875
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please email Laura Mass of the Resources First Foundation at
lmass@resourcesfirstfoundation.org
or see the website - http://resourcesfirstfoundation.org - for details.

About Resources First Foundation

Resources First Foundation (RFF) was formed to promote and design conservation and education tools and solutions to promote conservation and restoration activities for fish, wildlife and other natural resources primarily on privately owned lands across the United States and in southern Africa. Within southern Africa, the RFF supports the programmes of the Wilderness Trust, one of the conservation market leaders for community-based conservation and education on the subcontinent. Many community-based and private landowner conservation techniques and policies were first initiated and developed in a number of countries in southern Africa. Because the Foundation's financial resources are relatively small, grants will be made only upon the invitation of the foundation's officers and board. An area of grant-making focus includes training and education programmes for wildlife professions and innovative wildlife restoration projects (from the tagging of marine turtles to the reintroduction of white rhinoceros). RFF is a non-profit organization and donations are tax-deductible.

www.wildernesswildlifetrust.org

P.O. Box 5219
Rivonia
2128
South Africa

Tel: +27 11 807 1800

For more information contact Don Bailey at info@wildernesstrust.com

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