

# Darwin Initiative for the Survival of Species

## Half Year Report (due 31 October each year)

<b>Project Ref. No.</b>	162/12/004
<b>Project Title</b>	Building capacity for conservation of a critically endangered flagship species
<b>Country(ies)</b>	Kenya
<b>UK Organisation</b>	Zoological Society of London
<b>Collaborator(s)</b>	Kenya Wildlife Service, IUCN African Rhino Specialist Group
<b>Report date</b>	31/10/04
<b>Report No. (HYR 1/2/3/4)</b>	HYR 2
<b>Project website</b>	<a href="http://www.zsl.org/conservation/cp_0000001123.html">http://www.zsl.org/conservation/cp_0000001123.html</a> (ZSL) <a href="http://www.kws.org/darwin1.htm">http://www.kws.org/darwin1.htm</a> (KWS)

1. Outline progress over the last 6 months (April – September) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up).

1) Ecological Carrying Capacity (ECC) Fieldwork + Preliminary ECC model: (Darwin fellow Keryn Adcock and KWS Rhino Programme member Cedric Aduvaga). Field work for this was originally schedule for July-August 2004, but the KWS Rhino Programme vehicle which was to be used, was required for vital black rhino translocations to new areas in Kenya over that period. Because of continued vehicle commitments to the translocations, ECC field work commenced in September instead, using a hire-vehicle. During this month and into October, 6 key black rhino areas were successfully surveyed for black rhino browse availability and species composition. These were: Nairobi NP, Maasai Mara/ Trans-Mara, Lake Nakuru NP, Aberdares NP-Salient, Solio Ranch and Sweetwaters Ranch. 120-150 detailed vegetation plots were GPS'd, assessed and photographed within each of the 6 areas. These plots sampled the major vegetation types of each area, and catalogued amounts and composition of black rhino browse. Rhino feeding data was also compiled from observations made at each site. Landsat 7 imagery of each rhino area was also obtained to assist with vegetation mapping and extrapolation from surveyed sites. Outstanding auxiliary data on variables linked to black rhino carrying capacity was also compiled (e.g. Game count data, soil and geology data, long-term rainfall records).

The rhino rangers at each location assisted with field work, primarily to provide protection and navigation in the conservation areas. Where possible, however, they also assisted with plant identification and recording of rhino feeding signs, Many of them were thus able to improve their botanical and observational skills. One highly motivated ranger in one area commented that the browse survey was the best work he'd ever been involved with regarding understanding black rhino habitat (in comparison to several other research projects he'd assisted with in the past).

Three black rhino areas remain to be assessed (Scheduled for January). These were not surveyed, as at that time of year, arid conditions in these low-rainfall, would have made vegetation work difficult (re. plant identification) and un-representative (re. browse availability). Progress on the model must wait processing of the field data. Much progress has however been made on key aspects of the habitat assessment training manual.

2) Six monthly on-site monitoring + support: (Rajan Amin, Richard Emslie, Keryn Adcock, KWS Rhino Programme members Antony Wandera and Charles Odida). This aspect was primarily covered by incorporating support throughout the period into other Darwin or African Rhino Specialist Group activities taking place during the period and by 2 dedicated KWS field assistants. During June (AfRSG meeting), support on Rhino ID files and field data gathering and processing was provided to Nairobi NP and Lake Nakuru NP. During the ECC field work and field monitoring in September, assessment and support was provided to Tsavo West NP (Ngulia RS), Lake Nakuru NP, Aberdares NP, and Nairobi NP. Comprehensive start-up training was provided to rangers of the newly created sanctuary at Mugie Ranch

by the KWS field assistant and 2 park instructors from Tsavo East NP and Aberdare NP. Master ID files, data quality control procedures including field sighting forms and reporting templates were also set-up. The Darwin fellows are very impressed by the standard of training conducted by the local trainers and the first progress report has been produced by the Mugie Ranch staff. Support, training and assessment have also been undertaken by the 2 field assistants in all the KWS national parks and reserves. Further training has also been provided in the use of computer software and presentation skills. The Tsavo West NP (Ngulia RS) rhino warden did two presentations at the IUCN African Rhino Specialist Group meeting attended by over 50 people (rhino managers, experts and donors) from many parts of Africa and organisations in Europe and America. The Darwin Initiative work was also presented at this meeting. Specific field assessment reports have been produced and reviewed by the Rhino Programme Office, the Darwin Fellows, Rhino Committee members and park wardens and rhino staff.

3) Training of 2 KWS rhino scientists in producing population estimates using RHINO Bayesian Mark Recapture rhino population estimation software (Dr Richard Emslie) (May 2004).

An intensive "hands on" course was held at KWS headquarters. The KWS Rhino Coordinator (Martin Mulama) and Rhino Scientist (Ben Okita) were fully trained in the use of the tool to analyse the sightings data being collected by rhino rangers trained in ongoing routine ID monitoring programmes. (An earlier Darwin funded training course backed up by repeat follow up visits by Darwin Fellows and KWS affiliated staff has trained many rhino rangers throughout Kenya how to monitor rhino individually in the field. (Please see attached annex-2 report).

4) Development of rhino annual national and park status reporting templates (tailor made for Kenyan needs). The templates were produced in April 04. These will be further refined during the January workshop.

5) Training of 1 field officer in Wildlife Management (BSc course) at Moi university (Sept 04). The Tsavo West NP (Ngulia RS) Rhino Warden (Adhan Berhe) has started the BSc course in September 04.

6) Training of 12 field officers/rangers in Sanctuary Wildlife Management (Certificate course) at KWS Training Institute (Rajan Amin, Martin Mulama). (Apr-Sept 04).

The twelve KWS certificate students have now completed their course and have returned to their stations. The original project plan was to train 4 staff in Sanctuary Wildlife Management at Certificate level (1 in Years-1, 3 and 2 in Year-2). However, following discussions with the Principal at the KWS training institute, a reduction in the accommodation fees had been agreed (from 800 Kenya Shillings to 400 Kenya Shillings per day) to allow 2 extra officers to be trained. The project has also used this as a leverage to obtain extra funding from USAID to enable 2 officers from each of the six key National Parks to attend the course. All 12 rhino staff have now completed the course (end of Sept 04). The course was also modified to meet some of the specific needs of the programme. The UK and Kenyan Darwin Fellows (R Amin, M Mulama) taught the key module on Sanctuary Wildlife Management Techniques. The Darwin Fellows also set up the one-month field projects.

This capacity building initiative has been extremely valuable and the twelve monitoring staff bring essential scientific skills into the programme (for biological management of the sanctuaries). The students are also extremely motivated to contribute to the conservation programme. The Darwin project team will also shortly be setting up several important short field projects (some of these are listed in the 5-year conservation plan) for the returning students. The results of the certificate course are due in December and will be provided in the annual report. (Please see attached annex-1 report with student's and the Park Warden's feedback).

7) Rhino monitoring instructors training (Rajan Amin and trained KWS instructors). (July 04).

Eight of the Certificate students were also trained as Rhino monitoring instructors by a Darwin Fellow and four trained instructors (from the previous course) attending the Certificate course. The students were also formally tested and four students have now qualified as instructors (the programme now has 22 instructors). A further two will be re-tested in January. (Please see attached annex-1 report).

8) UK-based MSc study including training of rhino scientist in detailed population data analysis and preparation of annual status reports (R Amin, R Emslie) (Oct 03 – Sept 04).

The Rhino Scientist Ben Okita has completed his MSc project and returned to KWS. His six month was based on the population dynamics and status reporting of Kenyan Black Rhino populations. The Darwin fellows supervised this project along with Prof. Nigel Leader Williams from DICE. Extensive supervision was provided throughout this project both in Kenya and in the UK during data analyses and writing of

thesis. Guidance and support was also provided during the six-month lecture element of the course.

Mr Okita analysed the data for six of Kenya's rhino populations for his MSc thesis study. In the process, Mr Okita learnt many useful skills which will prove to be very useful in the process of building up and institutionalizing Status Reporting. Major progress has been made with starting the status reporting and analysis process as a result. Encouragingly, Mr Okita is currently buoyed with enthusiasm following the completion of his MSc. He has returned to work at KWS, and although he is still awaiting his MSc results, there is no reason to believe he will not pass.

Mr Okita's MSc analyses produced a number of very interesting findings and these have been presented to senior decision-makers in Kenya Wildlife Service. The results highlighted problems in Ngulia rhino sanctuary providing clear evidence of density dependent reduction in rhino population growth rates in recent years. Mr Okita's work will contribute to informing senior management and the need for specific urgent management actions to increase productivity of this continentally-rated **Key** population. In addition Mr Okita's analysis of the underlying performance of the harvested Nairobi National Park provided evidence to support the set percentage harvesting strategy being recommended by the AfRSG. This finding was referred to Information Document 59 at the recent CITES CoP13 held in Bangkok, Thailand. Thus already the status reporting and analysis process is starting to bear fruit. The next stage in the process of developing and institutionalizing status reporting in Kenya is discussed below. The results of the MSc course are due in December and will be provided in the annual report. (Please see attached feedback review by the student Ben Okita – the MSc thesis and a report from the university will be provided in the annual report)

#### 9) First annual park status reports and national status report produced.

A significant amount of field data capture, cleaning and analysis has been undertaken in the MSc project by Ben Okita with support and supervision from the Darwin Fellows. The initial aim was to produce the status reports as part of this study. However, following a project review by the student, Darwin fellows and Prof Nigel Leader Williams it was felt that it would be more appropriate to produce the specific reports after this work was conducted. It was also felt that it would be very useful to train 2 officers from each park to produce their status reports and the National report will then be synthesised by the Rhino Scientist and Coordinator with support from the Darwin fellows. A workshop will be held in January (provisionally 18-25<sup>th</sup>) to work with KWS rhino programme staff to determine what additional work is need to complete the first National Annual Status report (in addition to the work already done by Ben Okita) as well as train rhino staff from each of the areas and produce the first individual park status reports. The rhino scientist (Ben Okita) and the Darwin Fellows will conduct this training. The Darwin Fellows will continue to work closely with the KWS rhino programme and provide the necessary technical support and advice.

#### 10) Education and Community Awareness Programme

Park educational posters: The project is developing educational posters, which will be placed in lodges, park information centres and at park entrances. At Lake Nakuru NP, which has the highest number of visitors (of KWS parks), the posters will be placed at 4/5 strategic locations (using permanent structures) within the park. This will also be undertaken in some other parks following a review.

Presentations: Presentation material is being developed with the park staff at 3 levels: 1) broader park staff level, 2) community and 3) general visitors (at park gates, lodges etc). The trained rhino and park staff will undertake these presentations.

Community based educational programme with Lake Nakuru N.P. Education Dept: The Nakuru Field Study Centre was established in 1976 as an education base for creating wildlife awareness and providing information to the general Kenyan public and visitors through education programmes. The centre is strategically placed to cater for central and north rift valley and the western region of Kenya. The park is immensely rich in biodiversity, being a Ramsar site with about 450 bird species (including a very large flamingo population) and a key rhino sanctuary with over 100 black and white rhinos. However, the 188 km<sup>2</sup> fully fenced park, which is situated at the edge of Nakuru town and with an extensive community surrounding the park, is coming under increasing pressure. An effective community and school education programme is therefore vital.

The center, however, has lacked resources and human capacity for many years. Discussions have taken place with the Rhino Programme team, the Senior Warden and Education Officer of Lake Nakuru National Park on ways of improving the parks community and education awareness programme. Requirements include staff training, developing school and community education and outreach

programme, developing education materials and upgrading the education center facilities. The park management is extremely keen to develop this environment education programme.

The project is now helping to draw up a strategy and build a link with the education department at ZSL (London Zoo). It is planned that the ZSL education officer will accompany the Darwin fellow during the next field visit in January 05 to spend time at the Nakuru Centre to assess the requirements and develop an implementation plan. It is anticipated that this visit by the education officer will be funded by ZSL. Training and development of material will be subsequently undertaken. The recently trained Rhino staff will assist in this process. It is also planned for the Lake Nakuru NP education officer to spend a few weeks at the ZSL education department. This work has been discussed with the Darwin Secretariat and she has approved the use of project savings. The project will also leverage funds from other organizations. The project would like the Nakuru Centre to act as a model to develop/enhance other Kenyan environmental education centers such as in Tsavo West NP.

**2. Give details of any notable problems or unexpected developments that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.**

The KWS rhino translocation programme caused a 2 month delay in fieldwork on ECC/habitat assessments, and necessitated the un-planned-for expenditure of Darwin funds on vehicle hire for 1.5 months in order to undertake this work. The shift in time-of-year meant that 3 rhino areas could not be assessed at that time. The ECC/Habitat work of the Darwin programme is thus somewhat delayed, but is never-the-less still proceeding well.

Have any of these issues been discussed with the Darwin Secretariat and if so, have changes been made to the original agreement?

Yes this has been discussed with the Darwin Secretariat and the use of project savings for vehicle hire has been approved.

Discussed with the DI Secretariat: yes, in July 04

Changes to the project schedule/workplan: yes, in August 04

**3. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures? No**