

# Darwin Initiative for the Survival of Species

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

<b>Project Ref. No.</b>	13/001
<b>Project Title</b>	Conservation of Wetlands and Associated Biodiversity in Northern Zambia
<b>Country(ies)</b>	UK and Zambia
<b>UK Organisation</b>	University of Aberdeen
<b>Collaborator(s)</b>	Kasanka Trust, Zambia (KTL)
<b>Report date</b>	31 October 2006
<b>Report No. (HYR 1/2/3/4)</b>	Half yearly report no. 3
<b>Project website</b>	<a href="http://www.kasanka.com">www.kasanka.com</a>

### 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).

Darwin Trainee: Gryton Kasamu commenced the MSc course in Biodiversity and Tourism at DICE, University of Kent in September. He has begun to discuss options for his forthcoming research project.

Guide Training: Leslie Reynolds has continued training activities within Kasanka. Leslie attended a certified guide training course in South Luangwa National Park and has been applying this knowledge to the training of scouts in Kasanka.

Community Relations: Discussions between Dr Mike Kennedy and Mr Fredrick Mbulwe (Kasanka community project co-ordinator) have continued with regards to a resource mapping exercise in the Kafinda Game Management Area (GMA). Sensitisation of local communities to a future resource mapping exercise is underway by means of village visits by community project staff from Kasanka. Dr Kennedy contributed to a three-day workshop (26<sup>th</sup> to 28<sup>th</sup> July) aimed at teachers from both government and community schools within the Kafinda GMA who run Chongololo (conservation clubs). Discussions were held based around material which was prepared and circulated by Dr Kennedy, relating to the teaching of conservation concepts, and formulating work and experimental plans to help teach conservation concepts.

Hydrological investigations: Sampling has continued at up to 34 sites throughout the park and within the Kafinda GMA (concentrating generally upon sites where waters will subsequently flow into the national Park). Alkalinity analysis is now being carried out within the laboratory space at Kasanka National Park. Lackson Chama, Dr Kennedy's research assistant has been trained in the techniques involved. Samples have also been returned to the UK for oxygen isotopes ratio analysis at the Scottish Universities Environmental Research Centre (SUERC) in east Kilbride.

The techniques employed allow 'finger-printing' of different sources of water (e.g. rainfall or groundwater) in order for us to gain an insight into which sources of water are helping maintain various freshwater habitats. The results are beginning to suggest that the critically important wetland habitats found within the park have seasonally variable inputs of water, with rainwater being important in replenishing water levels following of rains. Two of the main rivers which flow through the park, the Musola and the Kasanka, also appear to have a degree of connectivity to the wetland systems, and also to the groundwater within the park. A third major river which flows through the park, the Luwombwa, appears to have a different character, with little connection between the main channel and adjacent groundwater. This then suggests that a majority of the water found within the Luwombwa channel originates from outwith the boundaries of the National park.

Rainfall gauges have been deployed at sites within the park where there are permanently stationed staff,

and within the surrounding GMA at schools, or where Agricultural Extension Officers are based. This will allow mapping of daily rainfall values in and around the park.

Rainfall data from the research centre, where the laboratory is based, will be provided to the Zambian national meteorological department in Kasanka to add to the national rainfall statistics.

Burning Experiments: Early and late-burning treatments have been implemented and monitoring of experimental plots has continued. Monitoring includes a variety of measurements looking at vegetation composition and structure from paired sample locations inside (ungrazed) and outside (grazed) grazing enclosure cages. Treatments (early burn, late burn, no burn) are replicated within various key habitat types found within the park.

Other research activities: An expedition from the University of Glasgow, lead by Dr Kevin Murphy, took place during September and October. Baseline sampling for freshwater invertebrates, plants, algae, zooplankton, phytoplankton and fish was carried out at a number of the Darwin hydrological monitoring sites in order to help characterise the sites.

A M.Sci. student from Glasgow University, Victoria Patterson, arrived in Kasanka in September and will be based in the park for a total of ten months. She will be carrying out a research project looking at the effectiveness of using chilli pepper 'fences' as a means of deterring elephants and other large grazers from village gardens. She will also assist the Darwin project in its day-to-day operations.

**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.**

None

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

**Discussed with the DI Secretariat:**                      **no/yes, in..... (month/yr)**

**Changes to the project schedule/workplan:**    **no/yes, in.....(month/yr)**

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

**If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document.**

**Please note: Any planned modifications to your project schedule/workplan or budget should not be discussed in this report but raised with the Darwin Secretariat directly.**

Please send your **completed form by 31 October each year per email** to Stefanie Halfmann, Darwin Initiative M&E Programme, [stefanie.halfmann@ed.ac.uk](mailto:stefanie.halfmann@ed.ac.uk) . The report should be between 1-2 pages maximum. **Please state your project reference number in the header of your email message.**