



Darwin Initiative Annual Report



Important note:

To be completed with reference to the Reporting Guidance Notes for Project Leaders – it is expected that this report will be about 10 pages in length, excluding annexes

Submission deadline 30 April 2010

Darwin Project Information

Project Ref Number	DAR17-031
Project Title	Ecological sustainability of leopard trophy hunting in Zimbabwe
Country(ies)	UK, Zimbabwe
UK Contract Holder Institution	WildCRU, Zoology Department, Oxford University
Host country Partner Institution(s)	Zambezi Society
Other Partner Institution(s)	Parks and Wildlife Management Authority
Darwin Grant Value	£214 886
Start/End dates of Project	December 2009 to November 2012
Reporting period (1 Dec 2009 to 31 Mar 2010) and annual report number (1,2,3..)	December 2009 to March 2010, Annual Report 1
Project Leader Name	Dr Andrew J Loveridge
Project website	http://wildcru.org/research http://www.zamsoc.org
Author(s) and main contributors, date	A.J. Loveridge (Oxford), L. Evans (Zambezi Society), R. Mandisodza (PWMA/ Zambezi Society)

1. Project Background

This project aims to address the need for improved management and sustainable conservation of African leopards (*Panthera pardus*) and leopard habitat in Zimbabwe. The project will collect ecological and management data to support a National Leopard Management Strategy in Zimbabwe; the design and implementation of which will be facilitated through this project. The project is a three way partnership between The Wildlife Conservation Research Unit, Oxford University (WildCRU, lead UK institution), The Zambezi Society (Zamsoc, Host country partner) and Parks and Wildlife Management Authority of Zimbabwe (PWMA, project partner).

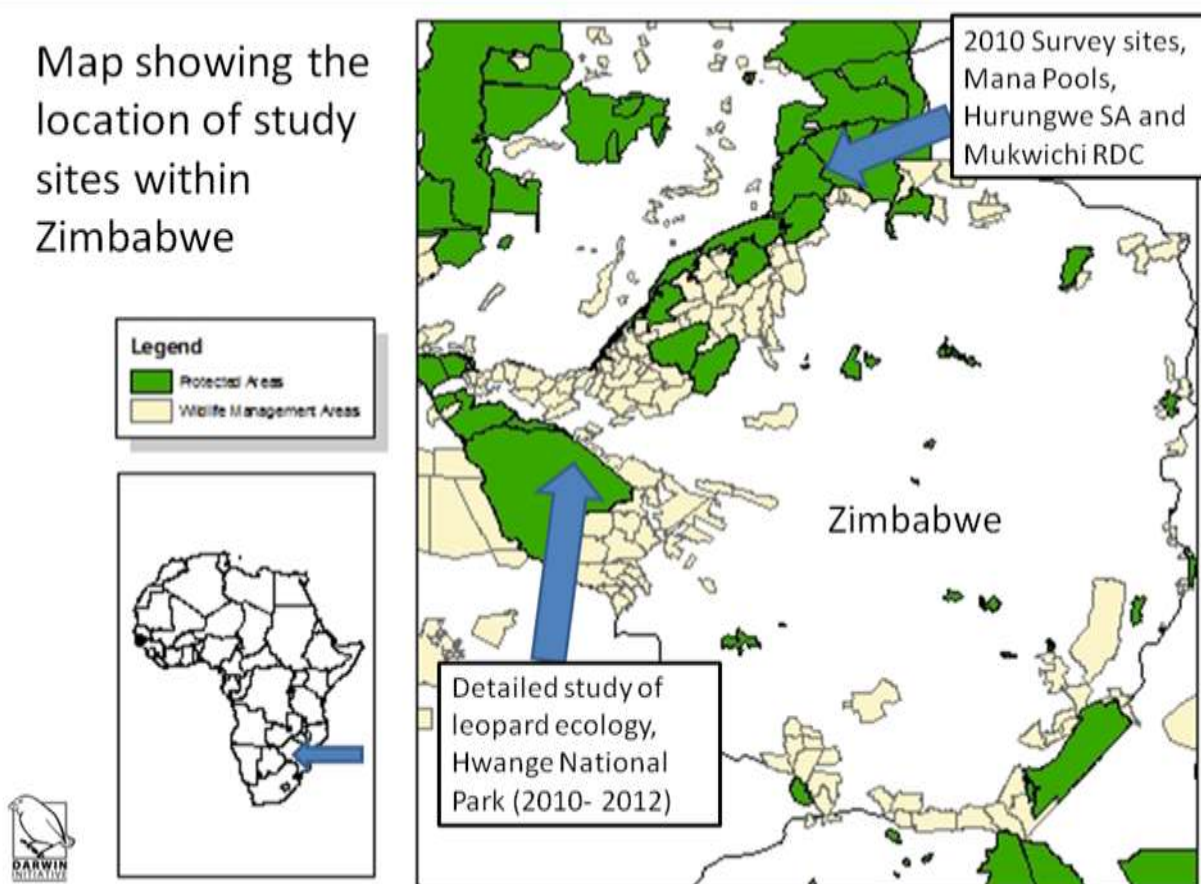
Leopards are an important component of naturally functioning ecosystems. However, a lack of data on leopard populations impedes effective conservation of the species and its habitats. Furthermore, leopards are hunted for sport in a number of African countries. In Zimbabwe there is an annual CITES quota of 500 individuals each year. Few data are available on the impact hunting has on leopard populations to show that off-take is non-detrimental. Stakeholders (particularly PWMA) are concerned current hunting may be unsustainable because current quota setting models use historical habitat availability as a proxy for leopard population size, despite known habitat degradation, increasing human populations and

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changing land use (resulting in increasing leopard-livestock conflict). Reassessment of current leopard management policy and practice is urgently required, but is hampered by lack of expertise and capacity within management institutions. This project hopes to address these problems by collecting baseline ecological and distribution data, providing management training and facilitating development of a stakeholder driven National Leopard Management Strategy. The map below shows key sites the project will work in over the next year. A detailed study of leopard spatial ecology and social behaviour will be undertaken in and around Hwange National Park to investigate the impacts of trophy hunting. Surveys of potential leopard populations will take place at a number of sites in national parks, safari areas, communal lands and private conservancies. Sites that have been identified for surveys during the coming year are Mana Pools National Park, Urungwe Safari Area, Mukwichi District.

Final approval for this project was only received from the Darwin Secretariat in October 2009 for a start date of 1st December 2009. Thus this report only covers the four month period (December 2009 to March 2010) since the initiation of the project. The constraints on progress imposed by this delay are discussed in the section 'other comments on progress not covered elsewhere'.

Map showing the location of study sites within Zimbabwe



2. Project Partnerships

Project partnerships

This project is a partnership of three institutions.

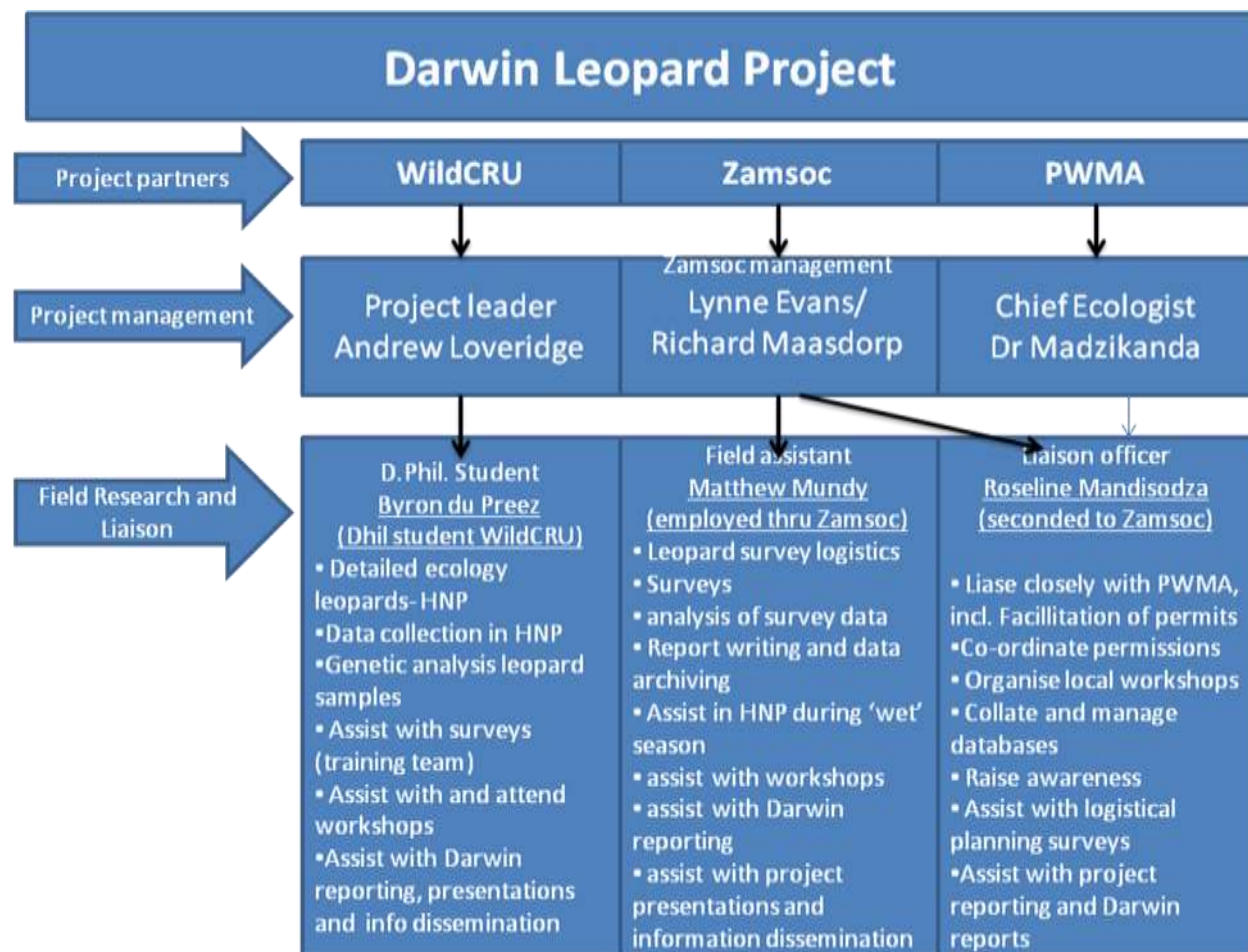
The WildCRU, Department of Zoology, Oxford University is a UK University based research group is the UK partner in the project. Dr Andrew Loveridge is the project leader for this Darwin project. Mr Byron du Preez is a D.Phil. student registered at Oxford who will be involved in the field research component of this project and this research will form the basis

for his D.Phil thesis. The inclusion of Mr du Preez in this project has been made possible by a Beit Trust Scholarship to support his fees and living expenses while he is a student at Oxford.

The Zambezi Society (Zamsoc), an established conservation NGO that has previously undertaken assessments of the sustainability of leopard trophy hunting, has initiated the National Strategy for leopard conservation and brought together the partners for this project. Zamsoc liaises closely with Parks and Wildlife Management Authority, Zimbabwe, research staff and local stake-holders, will organise and run technical and management workshops, co-ordinate permissions and logistics for surveys, maintain the project website and disseminate results and information. Zamsoc is represented on the Zimbabwe CITES technical committee and is therefore in a key position to ensure implementation of the recommendations of this project. Zamsoc is the recipient of all host country DI funding. Because of staff turnover Zamsoc has recently undergone a restructuring exercise and is now reevaluating their role in Zimbabwean conservation. Dr G. Purchase is unable to continue with her role in Zamsoc and with the leopard project due to having taken up a role as the regional cheetah and wild-dog co-ordinator for southern Africa. Mr D. Purchase has resigned from Zamsoc to pursue other professional interests. Their roles within both Zamsoc and the Darwin Project have been taken over by Lynne Evans (Zamsoc Task Force member) and Richard Maasdorp (Zamsoc Strategic Director). It is envisaged the Roseline Mandisodza, previously an ecologist in PWMA scientific services will be seconded to Zamsoc and fulfil a liaison role. Advice on these changes have been sought from Eilidh Young (ETF) who has advised changes are acceptable and require no further permissions from the DI secretariat. In addition Zamsoc is to employ Matthew Mundy (and recent graduate of Rhodes University) to undertake the surveys for this project and assist with other work in the field. The details of responsibilities and management structure are detailed in the diagram at the end of this section.

Parks and Wildlife Management Authority, Zimbabwe (PWMA) is an independent parastatal authority responsible for management of protected areas and biodiversity, sustainable use of wildlife, population monitoring, and evaluation of CITES and other quotas. PWMA has officially commissioned this research and assigned a staff member to the project to facilitate and co-ordinate research and compilation of data. PWMA are the management authority responsible for formulation of policy and implementation of management recommendations, as well as being the body responsible for implementation of CITES legislation. Hence recommendations of this project can be translated into changes to policy and management. PWMA will provide access to official government records and databases. Staff time and resources will be made available in the CITES office, hunting and administration offices, permits office, scientific services and in regional national parks. PWMA will receive no direct funding through this application. Ms R Mandisodza (PWMA Research Services Office) has been collaborating closely in the design, management and implementation of this project.

Since being informed of the success of the project proposal in October 2009, Dr Loveridge has travelled to Harare, Zimbabwe. In January 2010, the project partners met on three occasions to discuss the project and begin project planning. In addition Roseline Mandisodza was provided with a flight (through the Kaplan Visitors Grant held by WildCRU) to visit WildCRU and meet up with the WildCRU team to put together a work plan and identify priorities for 2010. Byron du Preez is due to meet with the Zamsoc team in April 2010 in order to advise on the correct survey protocols. Other project planning is undertaken via email and phone. The following organisational structure has been decided upon by the project partners to identify responsibilities and aid management of the project by UK and host country partners. We anticipate that this structure will evolve as the project progresses.



The project has very close links with the Hwange Lion Project- a project that began as the result of receiving a Darwin Initiative Award and follow-up grant (Project number 162/09/015). We already have links with other scientists undertaking research on leopards in Zimbabwe (2 projects) as well as research on leopards and other carnivores being undertaken in Botswana and South Africa. We will cement these links in the coming year through regional workshops to be held as part of the Darwin Project. The CBD focal point in Zimbabwe is the PWMA Conventions Office at Parks HQ in Harare. The PWMA Conventions Manager is Ms Olivia Mufuti and through Roseline Mandisodza we are in contact with her. We do not currently have a formalised link with the Conventions Office, but aim to develop closer contact as the project continues.

3. Project progress

3.1 Progress in carrying out project activities

Due to delays in the announcement of this project, outlined above, the anticipated 1st year's work has not gone according to the planned schedule. Much of the project's fieldwork is seasonal and because of disruption caused by the rains it is usually not feasible to undertake surveys between November and May (the 'wet' season). Because the project was only started in December none of the field based work has yet been implemented. This year's fieldwork will begin in May 2010 and run through until October 2010. We hope to report on the progress of these activities and associated outputs in our next report. We report below against the originally proposed activity schedule in the project proposal, though it should be borne in mind

that this report covers only the first four months of the project being operational (December 2009- March 2010):

National surveys for leopards. As explained above no surveys have been undertaken by the project to date. This is because the project was only approved to start in December 2009. Fieldwork is only feasible in the dry season (May-October). We have however undertaken a number of surveys before the initiation of the project. These took place in Matetsi Safari Area, Ngamo and Sikumi Forest, Hwange National Park and Buby Valley Conservancy. Data from these surveys are available for use by the project.

Previous **survey data have been compiled and reported to stakeholders**, however since the initiation of the Darwin project no surveys have been carried out.

The **detailed study of the impact of trophy hunting on leopard behavioural ecology** has not been started in the field. However study sites have been identified and reconnoitred for this component of the study. The equipment to carry out the work has been purchased over the last three months so that the fieldwork can be started at the beginning of the dry season. Mr Byron du Preez has been recruited to undertake this fieldwork as part of his D.Phil. studies at Oxford University. He has received the necessary training for this role over the last year, including attending a Wildlife capture and handling course and spending time at WildCRU in Oxford to refine fieldwork plans.

As no results are yet available for the detailed study it has not been possible to disseminate results.

Data on **management and historical leopard hunting quotas and offtakes** have been compiled by Roseline Mandisodza and Gianetta Purchase during 2009 before the project was finally officially approved. This work is ongoing and its data are being supplemented by a hunt return form collected from all hunting operators who hunt leopards. PWMA have made completion of this return form a mandatory requirement for export of hunting trophies.

Identification of shortcomings of the current system for managing leopard quotas was not anticipated as an activity during the first year of the project.

The **National Leopard Management Strategy** workshops will only be held in year 3 of the project, likewise approval for the Strategy will only be sought at the end of the project.

5.1) The project has not been operational for long enough to organise a regional **technical workshop** or **stakeholder workshops** as was originally anticipated (activity 5.1 & 5.2). These are now planned for the end of 2010.

6.1) **Training and Capacity building.** One PWMA ecologist (Mr Godfrey Mtare) attended the Oxford diploma course in International Wildlife Conservation, based at WildCRU in 2009. Mr Edwin Makuwe (also a PWMA ecologist) is currently attending the same course. Acceptance on this course was facilitated as part of the Darwin project. Additional training for other management staff has not yet been implemented, however some initial training needs have been identified and we plan to run a survey course for PWMA field staff in early to mid 2010. A training manual for surveys is currently being compiled for distribution.

3.2 Progress towards Project Outputs

The following narrative refers to each output originally identified in the log frame in the project proposal. The numbering of outputs in the original proposal is retained here:

Output 1:- National leopard surveys at 17 sites across the country over 2 years. There has not been time to implement surveys since the initiation of the Darwin project for the reasons outlined above. However a number of surveys were undertaken by WildCRU/ PWMA/ Zamsoc for leopard during 2008 and early 2009 and these data will contribute to the overall database compiled for leopard distribution and used in design of the National Leopard Management plan. The indicators of having achieved this project output are technical reports, information

disseminated to stakeholders and publication of peer reviewed papers. The assumptions that permissions to undertake the surveys remain in place and that survey methods appropriate to the area are chosen currently appear to be valid.

Output 2:- Study of the impact of trophy hunting on leopard behavioural ecology. This part of the Darwin project has not yet started due to the late notification of the project funding outlined above. However study sites have been assessed and equipment for this study has been sourced and purchased in the first few months of the project. Fieldworkers have received relevant training to undertake this work. We anticipate that this part of the study will begin in May 2010. Indicators of achieving this output are technical reports submitted yearly and publication of peer reviewed papers on completion of the research. A further indicator is the submission of a successful DPhil thesis by Mr B. du Preez. Important assumptions are that permissions are granted to undertake the work, suitable data is collected using suitable tools and methods and that data are analysed appropriately.

Output 3:- Data on trends in past management collated from PWMA records. These data have been compiled for the southern parts of the country and this work is ongoing. A hunt return form has been designed and distributed to hunters in order to record the details of all leopard hunts taking place in the country. Completion of this form is now a mandatory requirement for allocation of a CITES tag and exportation of a leopard trophy. By the end of the project we feel that we will have accumulated adequate knowledge of trophy hunting trends in the country and these will provide a valuable insight that will inform the National Management Plan. There have been no changes in the indicators or assumptions for this output since submission of the final project proposal.

Output 4:- Design and implementation of a National Management Strategy. This component of the project will not begin until year 3 of the project. However many of the outputs that are currently in progress will contribute to this output (e.g. national surveys- output 1, detailed demographic understanding of the impact of hunting leopards – output 2, past trends in trophy allocation and leopard hunting- output 3 and a network of collaborations set up with local and regional scientists- output 5). There have been no changes in the indicators or assumptions for this output since submission of the final project proposal.

Output 5:- Technical exchange between local and regional experts. These workshops will be organised each year and bring together regional and local experts to facilitate exchange of information and develop collaborative networks. These have not so far been organised although the first one is being planned for the end of 2010. Indicators of success are organisation of workshops and attendance by participants and the publications and dissemination of workshop reports. Assumptions have not changed since submission of the final proposal.

Output 6:- Training provided to local conservationists and capacity generated in local conservation institutions through the project's activities. So far one PWMA ecologist has received a diploma from Oxford University and a second PWMA ecologist is currently attending the same course. We will continue to identify suitable candidates for this course and facilitate selection for this. The course is fully funded through a grant to WildCRU, Oxford University by the Panthera Foundation. In addition we will provide practical training to on the ground conservation staff in survey techniques, database management and analysis. A pre survey workshop on survey techniques is due to be held in May 2010. Further opportunities for training will be identified during the lifetime of the project. Measureable indicators remain the same as in the final proposal as do the assumptions. So far one PWMA ecologist has received training to diploma level and this is verifiable by the diploma certificate awarded by Oxford University.

3.3 Standard Measures

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	Total to date	Number planned for this reporting period	Total planned from application
1A	Number of people to submit thesis for PhD qualification (in host country)				1	0	0	1
3	Number of people to attain other qualifications (i.e., Not outputs 1 or 2 above)	1	1	1		1	1	3
4C	Number of postgraduate students to receive training		1	1	1	0	0	3
4D	Number of training weeks to be provided		20	20	20	0	0	60
5	Number of people to receive at least one year of training (which does not fall into categories 1-4 above)	1	1	1	1	0	0	4
6B	Number of training weeks to be provided	0	33	33	33	0	0	100
7	Number of (ie different types - not volume - of material produced) training materials to be produced for use by host country		1	1		0	0	2
8	Number of weeks to be spent by UK project staff on project work in the host country	5	25	25	20	5	5	75
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country				1	0	0	1
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording				2	0	0	2
11A	Number of papers to be published in peer reviewed journals				4	0	0	4
11B	Number of papers to be submitted to peer				4	0	0	4

	reviewed journals							
12A	Number of computer based databases to be established and handed over to host country		1		1	0	0	2
14A	Number of conferences/seminars/ workshops to be organised to present/disseminate findings		1	1	2	0	0	4
14B	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.			1	1	0	0	2
15A	Number of national press releases in host country(ies)			1	1	0	0	2
15B	Number of local press releases in host country(ies)			1	1	0	0	2
16A	Number of newsletters to be produced		4	4	4	0	0	12
16B	Estimated circulation of each newsletter in the host country(ies)		75	75	75	0	0	75
17A	Number of dissemination networks to be established				2	0	0	2
19A	Number of national radio interviews/features in host county(ies)				1	0	0	1
19C	Number of local radio interviews/features in host country(ies)			1	1	0	0	2
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	£74.5K	£46K	£15K	£15K	£74.5K	£74 500	£150 500

In Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, eg title, name of publisher, contact details, cost. Mark (*) all publications and other material that you have included with this report.

Table 2 Publications

To date no publications have been produced by this project.

Type (eg journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)	Cost £
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3.4 Progress towards the project purpose and outcomes

It is difficult to assess the progress towards the project purpose and outcomes after only four months. The project has been seriously hampered by the uncertainty over whether the funding for this project would be awarded and the resulting delay in the start dates of the project. Two crucial impacts have been felt as a result. Firstly, the loss of personnel originally identified to take part in this project resulted in the need to identify and recruit new staff. Dr G. Purchase and Mr D. Purchase unfortunately were forced to seek alternative employment due to the uncertainty of whether or not the DI project would be awarded. Secondly, the late start has shifted the project timetable such that the early part of the project fell in a season unfavourable for fieldwork. Field surveys are unfeasible during the wet season and likewise capture and monitoring of wild carnivores at this time of year is considerably more difficult than during the dry season. Nevertheless, and despite these early setbacks, there is every indication that the project will be able to contribute significantly towards the project purpose of assisting Zimbabwe in the implementation of a sustainable management system for leopards. Progress has been made towards a number of the project outcomes- particularly compilation of a database on allocation and management of historical leopard hunting quotas in Zimbabwe. Additionally through the influence of this project a PWMA ecologist has received a Diploma from Oxford University and a second ecologist is currently receiving the same training. As described above the purpose level indicators and the assumptions made when outlining each proposed output have not changed since the submission of the original proposal.

3.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

We anticipate that implementation of the national leopard management strategy, envisaged as an end output of this project, will greatly enhance the conservation and sustainable management of a key flagship species. We also anticipate that this project will assist the host country to meet its CITES obligations with regard to non-detriment findings for export of leopard hunting trophies. However after having been operational for only four months it is currently difficult to report on the project's progress towards realising these aims.

4. Monitoring, evaluation and lessons

We do not currently anticipate that we will need to change the means of monitoring and evaluating the progress of the project originally outlined in the project proposal (technical reports on surveys and demographic study, databases on historical management, workshops organised and reports published, training monitored through number of trainees attending training and courses). However, due to the fact that the project has only been operational for only four months we are not yet at the stage where evaluation has become necessary and we are currently putting all of our efforts into ensuring that all of the project activities are successfully initiated in the early stages of the project and that the management structures and project planning are instituted to ensure smooth running of the work and successful achievement of project outcomes.

5. Actions taken in response to previous reviews (if applicable)

This report is the first to be submitted by this project for review. A half year report was not submitted because final approval for this project by the Darwin Initiative Secretariat was only received in October 2009 for a start date of 1st December 2009.

6. Other comments on progress not covered elsewhere

This project received final approval from the Darwin Initiative Secretariat in October 2009 for a start date of December 2009. Late approval for this project has hampered early progress on the project, however we are confident that we can still achieve the outputs and purpose of the project by the end of Year 4.

Zambezi Society- the host country partner is currently in the process of restructuring their activities and conservation focus after Dr and Mr Purchase left the society to take up work elsewhere. Nevertheless Zamsoc has made strides in facilitating the initial stages of this project and we anticipate that capacity will be built within Zamsoc to undertake the activities laid out in the project proposal. Institutional funds available through this Darwin grant are likely to provide valuable interim support for Zamsoc during the period they are restructuring their activities. Because Zamsoc have an important role to play in Zimbabwean conservation we feel that this is an important additional outcome of the Darwin project.

We have succeeded in raising additional matched funding for this project. Originally we anticipated receiving £31K for the British Embassy, £10K of sponsorship from Nissan Zimbabwe, £15K per year from Panthera Foundation and £20K from Wilderness Trust, amounting to £116 500 of matched funds. In addition to these funds we have an additional £17 500 towards purchase of field equipment through the Frankenberg Foundation. Mr B du Preez received a Beit Trust Scholarship worth £32K (to cover University fees) over two years. As noted in Table 1 we now have a total of £150 500 of matched funding for this project.

7. Sustainability

The ultimate aim of this work is to assist the host country with the formulation of a management policy for the sustainable use and conservation of a key predator and CITES controlled species. Each of the outputs of this work will feed into this strategy. Endorsement and adoption of the strategy by stakeholders and conservation managers is anticipated to result in a sustainable outcome for the project. If all our assumptions on the feasibility of achieving each output are correct we feel that design of this management strategy as an ultimate output of the work is a feasible one and one that will allow the project partners to hand over a workable and publically acceptable management plan for leopards to the relevant management authorities at the end of the project. We hope that through training given by this project to conservation and ecology staff in the host country the tools and capacity to implement the management strategy will also be available once the Darwin project is finished.

8. Dissemination

We are currently updating the project websites to include details of the Darwin Projects aims and objectives and information about activities and the results of surveys. At this early stage of the project we do not have any results to disseminate to stakeholders, but we anticipate making this information available through surveys and technical reports, information leaflets and workshop reports throughout the life of the project.

9. Project Expenditure

Table 3 Project expenditure during the reporting period (Defra Financial Year 1 April 2009 to 31 March 2010)

Item	Budget	Expenditure	+/-
Salaries			
UK costs (Loveridge)			zero
Host country salaries			
Overhead costs			
Oxford overheads			zero
Zamsoc overheads			
Travel and subsistence			
UK travel			zero
Host country travel			
Operating costs			
Veterinary and capture			zero
Conferences/ meetings			
Fieldwork operating costs (UK & Host country)			
Capital items/equipment			
Radio-telemetry equipment			zero
Others (specify)			
Indirect costs (FEC)			zero
Printing			
TOTAL			

The figures quoted above refer to the budget in the original application (revised at the request of Darwin Finance in November 2009 to reflect the late start date of the project). Please note that the row headings in Table 3 have been changed to be consistent with headings submitted in the original proposal budget. In each budget category we have noted the overall budget, project expenditure and the amounts remaining to be carried forward to Year 2. The project requested and received permission to carry forward up to £17 000 of a total budgeted expenditure of £39 208 for Year 1 of the project. We were able to spend slightly more than we

had originally forecast, thus a total of £13 665.53 is expected to be carried forward to Year 2. The rationale for this under spend is the late initiation of the project. We were unable to run the expected surveys, hold workshops or print educational material. There has been some delay in recruiting local staff because local people who had been lined up for this project found other employment when there was some doubt as to whether the project would receive approval. This has resulted in an under spend by both the UK and the host country partners. Overall, the expenditure within the main budget headings is, so far, within the original budget and there has been no significant deviation from planned expenditure (apart from the predicted under-spend this year).

10. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

I agree for LTS and the Darwin Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

Due to the late approval of this project we have not yet been running the project long enough to record any major progress towards project outputs. We have concentrated mainly on getting the organisational structure in place and planning work for the next year. We hope that we will be able to report on more substantial progress and achievements later in the year. We have some photographs available of leopards and of field teams working and these can be made available should they be required.

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2009/10

Project summary	Measurable Indicators	Progress and Achievements April 2009 - March 2010	Actions required/planned for next period
<p>Goal: <i>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</i></p> <p><i>The conservation of biological diversity,</i></p> <p><i>The sustainable use of its components, and</i></p> <p><i>The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</i></p>		<p>This project should ultimately contribute towards improved sustainable management of African leopards in Zimbabwe, however, after 4 months of operation we have not contributed significantly to this goal</p>	<p><i>(do not fill not applicable)</i></p>
<p>Purpose To collect ecological and management data to support a National Leopard Management Strategy and to build local and regional consensus to create and implement a conservation strategy to manage leopards and their habitats on a sustainable basis.</p>	<p>Increased understanding of the distribution, viability and previous management of leopard populations and improved motivation, capacity and tools to monitor and manage them.</p>	<p>The project has been running for only 4 months as a result of delayed approval. As outlined in the main report many of the project activities have been delayed and we are effectively still in the early stages of setting up organisational structures and planning work. A number of activities were started before funding was approved which will be consolidated over the next year.</p>	<p>Leopard surveys started</p> <p>Detailed study started</p> <p>Continued collection of historic hunting data</p> <p>Regional workshop organised</p> <p>Training of ecology staff continues, training workshops organised</p>
<p>Output 1: National leopard survey provides knowledge of distribution, population viability and wider ecosystem that will inform national management.</p>	<p>Surveys of distribution and abundance of leopards and other mammals undertaken in 12 protected areas, 2 conservancies and 2-3 rural districts councils (years 1 and 2).</p>	<p>No progress made on surveys since the DI grant was started in December 2009, sites for surveys to start in May 2010 identified, staff have been recruited for surveys, 2010 surveys are currently being planned. Technical reports for each survey are considered appropriate indicators.</p>	

<p>Activity 1.1 National leopard survey to determine leopard population size and distribution at ~17 sites across the country</p>	<p>Surveys have not been carried out since the start of the project. Personnel have been recruited to carry out surveys in 2010, sites have been identified to 2010 surveys and permissions are being sought to access these areas. A training workshop is planned to ensure skills are in place to undertake survey.</p>
<p>Activity 1.2. Baseline survey data compiled. Results disseminated, reports to decision makers in management institutions, data inform quota allocation, CITES non-detriment findings</p>	<p>Since the start of the DI project no survey data has yet been collected to contribute to baseline data. Surveys undertaken by WildCRU, Zamsoc and PWMA in 2008 and early 2009 will be used to augment data collected during the project.</p>
<p>Output 2. Impacts of trophy hunting on behavioural ecology and population viability recognised and incorporated into management during the life of the project and ultimately into policy through a National Management Strategy</p>	<p>Technical knowledge gained in years 1-3 by project scientists on the impacts of trophy hunting on behavioural ecology and viability of leopard populations, and put forward for inclusion in national planning, changes in management and policy</p>
<p>Activity 2.1. Detailed ecological study to measure the demographic impacts of trophy hunting, undertaken at hunted and un-hunted study sites, results inform management strategy</p>	<p>Apart from site visits, staff training and purchase of equipment this component of the project has not yet been started. During the next 6 months we anticipate that fieldwork will begin, including capture and instrumentation of study animals and the first camera trapping session.</p>
<p>Activity 2.2 Results disseminated, published in relevant peer reviewed journals, lessons inform management of leopards and setting of hunting quotas</p>	<p>Results have not yet been obtained for this component of the project. We anticipate that we will be in position to disseminate results by the end of 2010.</p>
<p>Output 3. Trends in past management and utilisation identified and used to inform management during the life of the project and incorporated into the National Management Strategy</p>	<p>Database of historical leopard management and utilisation compiled by project staff by year two</p>
<p>Data on trophy hunting trends has been collected prior to the start of this project by Dr G. Purchase and Ms R. Mandisodza. These data are available for use by the project and data collation is ongoing. A hunt return form was devised and distributed and results from this are currently being evaluated. Forms are being printed and distributed through this project in 2010. The resulting database will form a suitable indicator of this output having been achieved.</p>	

Activity 3.1. To inform future management, data on historical leopard hunting and management trends compiled, database analysed for trends in quota allocation, trophy size, off-take 3.2 Identify shortcomings of system and future management requirements. Propose solutions as part of National Strategy based on field/ historical data		Data have been collated and this process is ongoing. A database is being compiled and when complete a broad analysis of trends will be undertaken to inform future management. This activity will continue throughout 2010/11 (Year 2 of the project).
Output 4. Sustainable management of leopard populations and leopard habitats implemented through National Leopard Management Strategy	National Leopard Management Strategy workshop held to devise strategy, in consultation with and attended by all stakeholders in year three	Workshops to design a management strategy for leopards will be held in Year 4, however we anticipate that this workshop will benefit from regional technical and stakeholder workshops held in Years 2 and 3.
Activity 4.1. Design a stakeholder driven National Leopard Management Strategy through participatory workshop		This activity will only take place towards the end of the project (in Year 4)
Activity 4.2. Approval sought by project partners from Minister for Environment & Tourism for National management strategy. Strategy endorsed		This will only be undertaken once the above strategy is complete at the end of the project
Output 5. Improved regional collaboration and technical exchange between conservation managers and scientists in southern Africa	Regional technical and management meetings organised by the project (years 1 and 2). Potential regional collaborations set up to enhance project impact	Workshops have not yet been held. A stakeholder and regional technical workshop is planned for late 2010. We anticipate that workshop reports will be printed and made available for distribution. This will be an indicator of success in achieving this output.
Activity 5.1. Two Regional technical workshops, attended by regional and local scientists, conservationists and managers, organised. Knowledge transferred and collaborations established		The first workshop will be held in late 2010. Plans for this workshop have been discussed by project partners.
Activity 5.2. Workshops reports (2) compiled, published and distributed to all stakeholders and workshop participants		A workshop report will be compiled and distributed to stakeholders after the workshop at end 2010
Output 6. Local conservationists monitor important components of biodiversity, using skills acquired during project, leading to improved monitoring of leopard trophy hunting off-takes and management	25 PWMA (field and administration staff), 5 RDC, 3 Forestry and hunting staff trained in monitoring of leopard populations, trophy hunting and survey methods 2-4 Zimbabweans gain valuable	Since the beginning of the project one Zimbabwean PWMA ecologist (Mr Edwin Makuwe) has been identified and enrolled in the Oxford Diploma in International Wildlife Conservation. In anticipation of this project another Zimbabwean PWMA ecologist (Mr Godfrey Mtare) attended the same course, receiving a diploma at the end of 2009. These courses were directly facilitated through this project. We will continue to put

of leopard populations and their habitats	training and experience on project, 2-3 Zimbabwean graduates receive diplomas	forward candidates in future years. A week long training course to familiarise PWMA ecology staff with appropriate survey methodology will be held in May 2010 attended by around 15 people. One Zimbabwean (Mr Matthew Mundy) have been recruited to undertake the surveys and will receive training and on the job experience. One Zimbabwean (Mr Byron duPreez) has been accepted by Oxford University for a D.Phil. Progress towards diploma and degree qualifications will indicate achievement of this output. Training manuals and number of attendees at workshops will provide an indication of the success of training exercises.
Activity 6.1. Develop training manuals where needed (e.g., survey manual; quota allocation; trophy measurement protocols). Manuals used in conjunction with training sessions		A manual for undertaking surveys of carnivores- using spoor transects is currently being compiled and will be used in training of PWMA and other ecology staff. Other manuals will be compiled during the project.
Activity 6.2. Identify host country personnel for Diploma training course		So far two host country personnel have been identified for a diploma course. One has completed the course the other is attending the course at the moment. Other local conservationists will be identified as the project progresses.

Annex 2 Project's full current logframe

LOGICAL FRAMEWORK

17. Please enter the details of your project onto the matrix using the note at Annex 3 of the Guidance Note. This should not have substantially changed from the Logical Framework submitted with your Stage 1 application. Please highlight any changes. (Use no smaller than Arial 10 pt)

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal:</p> <p>Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p>Sub-Goal:</p> <p>Promote leopards as ecological flagships to reduce loss of biodiversity in whole ecosystems and as components of biodiversity to be sustainably used to generate revenue to benefit people.</p>	<p>Leopard populations are stabilised and increase, leopard habitats are conserved, providing protection for other components of biodiversity. Use of species is managed within sustainable limits.</p>	<p>Non-detriment findings by National CITES Technical Committee submitted to CITES for the species</p> <p>Future surveys show leopard habitats are better protected and leopard populations healthy</p>	
<p>Purpose</p> <p>To collect ecological and management data to support a National Leopard Management Strategy and to build local and regional consensus to create and implement a conservation strategy to manage leopards and their habitats on a sustainable basis.</p>	<p>Increased understanding of the distribution, viability and previous management of leopard populations and improved motivation, capacity and tools to monitor and manage them.</p>	<p>Survey data and technical information published as reports and peer reviewed papers, workshop reports published and disseminated</p> <p>Information made publicly available to raise awareness</p> <p>National Leopard Management Strategy published</p>	<p>Ecological data collected through continuing collaboration of project partners</p> <p>Workshops are attended by stakeholders and consensus reached on leopard management</p> <p>Political motivation to protect and manage leopards as a sustainable resource is in place</p>

<p>Outputs</p> <p>1. National leopard survey provides knowledge of distribution, population viability and wider ecosystem that will inform national management.</p>	<p>Surveys of distribution and abundance of leopards and other mammals undertaken in 12 protected areas, 2 conservancies and 2-3 rural districts councils (years 1 and 2)</p>	<p>Technical survey report published and made available to stakeholders</p> <p>Information made available via websites and pamphlets</p> <p>Peer reviewed papers submitted for publication</p>	<p>Permissions remain in place to undertake surveys, collaboration between partners continues</p> <p>Methods appropriate to survey leopards and suitable data collected and analysed</p>
<p>Impacts of trophy hunting on behavioural ecology and population viability recognised and incorporated into management during the life of the project and ultimately into policy through a National Management Strategy</p>	<p>Technical knowledge gained in years 1-3 by project scientists on the impacts of trophy hunting on behavioural ecology and viability of leopard populations, and put forward for inclusion in national planning, changes in management and policy</p>	<p>Technical reports made to PWMA yearly</p> <p>Results and recommendations disseminated nationally and regionally through websites and printed material</p> <p>Peer reviewed scientific papers submitted for publication</p>	<p>Permissions remain in place to undertake research</p> <p>Suitable and sufficient data collected using appropriate research tools</p> <p>Data analysed and made available for use by managers</p>
<p>3. Trends in past management and utilisation identified and used to inform management during the life of the project and incorporated into the National Management Strategy</p>	<p>Database of historical leopard management and utilisation compiled by project staff by year two</p>	<p>Database available to managers</p> <p>Reports disseminated to stakeholders and via project website</p> <p>Peer reviewed papers submitted</p>	<p>Data made available by stakeholders, RDCs, PWMA</p> <p>Data effectively collated by project staff</p>
<p>4. Sustainable management of leopard populations and leopard habitats implemented through National Leopard Management Strategy</p>	<p>National Leopard Management Strategy workshop held to devise strategy, in consultation with and attended by all stakeholders in year three</p>	<p>Workshop reports prepared and disseminated</p> <p>National Leopard Management Strategy disseminated to stakeholders, approved by Minister</p>	<p>Co-operative relations established with all stakeholders</p> <p>Stakeholders and resource managers willing to contribute to and adopt a management strategy</p>
<p>5. Improved regional collaboration and technical exchange between conservation managers and scientists in southern Africa</p>	<p>Regional technical and management meetings organised by the project (years 1 and 2). Potential regional collaborations set up to enhance project impact</p>	<p>Two regional technical and management workshops facilitated, with scientists and managers invited from region</p> <p>Workshop reports prepared and disseminated</p>	<p>Regional scientists willing and motivated to collaborate with the project</p> <p>Scope exists for regional collaboration</p>

<p>6. Local conservationists monitor important components of biodiversity, using skills acquired during project, leading to improved monitoring of leopard trophy hunting off-takes and management of leopard populations and their habitats</p>	<p>25 PWMA (field and administration staff), 5 RDC, 3 Forestry and hunting staff trained in monitoring of leopard populations, trophy hunting and survey methods</p> <p>2-4 Zimbabweans gain valuable training and experience on project, 2-3 Zimbabwean graduates receive diplomas</p>	<p>Annual reports to PWMA</p> <p>Annual project reports</p> <p>Pre-survey training sessions at all 17 sites to be included as part of national survey</p>	<p>Staff motivated to learn and apply new skills</p> <p>Staff continue to be supported by PWMA and RDCs in conducting monitoring and management activities</p> <p>Most project trained staff remain in conservation organisations</p> <p>Entry requirements met by applicants for diploma course</p>
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Activities (details in workplan)

1.1 National leopard survey to determine leopard population size and distribution at ~17 sites across the country

1.2 Baseline survey data compiled. Results disseminated, reports to decision makers in management institutions, data inform quota allocation, CITES non-detriment findings

2.1 Detailed ecological study to measure the demographic impacts of trophy hunting, undertaken at hunted and un-hunted study sites, results inform management strategy

2.2 Results disseminated, published in relevant peer reviewed journals, lessons inform management of leopards and setting of hunting quotas

3.1 To inform future management, data on historical leopard hunting and management trends compiled, database analysed for trends in quota allocation, trophy size, off-take
3.2 Identify shortcomings of system and future management requirements. Propose solutions as part of National Strategy based on field/historical data

4.1 Design a stakeholder driven National Leopard Management Strategy through participatory workshop

4.2 Approval sought by project partners from Minister for Environment & Tourism for National management strategy. Strategy endorsed

5.1 Two Regional technical workshops, attended by regional and local scientists, conservationists and managers, organised. Knowledge transferred and collaborations established

5.2 Workshops reports (2) compiled, published and distributed to all stakeholders and workshop participants

6.1 Identify training needs, conduct field training exercises (surveys, radio-tracking, analysis of data), conduct in-house training programmes for administration staff

6.2 Develop training manuals where needed (e.g., survey manual; quota allocation; trophy measurement protocols). Manuals used in conjunction with training sessions

6.3 Identify host country personnel for Diploma training course

Monitoring activities:

Indicator 1: Robust data available via monitoring data (collected by project-trained staff and with project protocols) to show that leopard off-take is demonstrably sustainable and allowing annual report, based on scientific evidence, to be made to CITES, by the CITES technical committee

Indicator 2: Leopard utilisation sustainable and populations stable (indicated by comparison of future surveys against baseline data collected by project) leading to habitat protection and improved benefits generated for stakeholders and communities

Annex 3 Onwards – supplementary material (optional but encouraged as evidence of project achievement)

This may include outputs of the project, but need not necessarily include all project documentation. For example, the abstract of a conference would be adequate, as would be a summary of a thesis rather than the full document. If we feel that reviewing the full document would be useful, we will contact you again to ask for it to be submitted.

Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ltsi.co.uk putting the project number in the Subject line.	X
Is your report more than 5MB? If so, please advise Darwin-Projects@ltsi.co.uk that the report will be send by post on CD, putting the project number in the Subject line.	
Have you included means of verification? You need not submit every project document, but the main outputs and a selection of the others would strengthen the report.	None available to date
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	