

Darwin Initiative: Half Year Report

(due 31 October 2008)

Project Ref. No.	15/002
Project Title	Integrating Crane Conservation with Sustainable Habitat Utilisation
Country(ies)	Principally South Africa
UK Organisation	Zoological society of London
Collaborator(s)	Endangered Wildlife trust, South Africa
Project Leader	RA Pettifor
Report date	29 October 2008
Report No. (HYR 1/2/3/4)	3
Project website	N/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).

Effectively, by the end of September 2008 we were entering the final 9 month of our project, and over the six months April – September 2008, our emphasis began switching from new activities to consolidation, analyses, and reporting. I envisage nine key outputs stemming from our project that will leave lasting legacies for the conservation of cranes and their habitat within South Africa. These are i) an operational, clean, relational database; ii) GIS spatial layers; iii) PVAs carried out on the cranes, including sub-population modelling; iv) development of Quantitative Site Assessments; v) Training of SACWG staff; vi) Environmental Awareness and Education; vii) Strong partnerships with accounting systems; viii) a viable Business Plan; and ix) a five-year Forward Strategy that will receive buy-in from all of SACWG's current and future partners.

I briefly discuss the work we have undertaken towards each of the nine objectives over the past six months.

- i) Kirsten Oliver, our GIS & Database Co-ordinator, funded under this Darwin Initiative project, now has a "clean" database of all crane data from the late 1990s to the current time. Three tasks remain: a) ensuring continuity of the db beyond the lifetime of the project; b) capturing all extant data before end March 09, and c) fully automating input of current data received from the field. Plans are in hand for each of these three tasks.
- ii) The accuracy of GIS spatial layers continue to be a problem – eg recent work on Wattled Crane breeding sites (they **only** use wetlands to nest) indicated that according to the latest National Landcover Maps, around 10% of the cranes were not breeding within wetlands. However, this is a systemic problem, and one that is being addressed nationally – Kirsten Oliver sits on both the Wetlands Inventory and a SANBI Biodiversity advisory group. Despite these difficulties, we have used these spatial layers extensively these past six months – An MSc student (Katerina Wojtaszekova) & I have used the remote sensed data to evaluate differences in landcover between "active" and "historic" Wattled Crane sites. Married to Katerina's field work carried out last year, these results were presented at the PAOC (14th Pan African Ornithological Congress) in September (see attached file "PAOC WC2.ppt") and are being written up as papers. Kirsten Oliver has been using the geo-spatial data and the SACWG database to carry out Ecological Niche Modelling (she is presenting these data at the Wetlands Indaba conference as I write this). All

SACWG staff were given refresher courses in GIS use, & have incorporated the remotely sensed layers into their QSAs (see iv) below).

- iii) Much of the past six months were spent exploring PVA models for “cranes”, using the Blue Crane as our “typical” species (see attached file “PAOC BC.ppt”). Final models will be run in collaboration with Carmen Bessa Gomes (AgroParisTech) in November, and papers written up. All staff were (re)trained in population ecology and in the use of both Vortex and ULM (Unified Life Models) and each looked at their “own” species and study area at the July Workshop. We were able to analyse ring resightings and recoveries held by Kevin Shaw (our Cape Nature partner) that stretched back to 1993: despite initial difficulties in formulating a suitable model structure within a CMR framework, we now have robust survival estimates for each of our five age classes (juvenile: egg laying through to end of first year; birds 1 – 2 years old; 2 – 3 years; 3 – 4 years, and adult). Initial results were presented at the PAOC in September (see above attached file). Also discussed at the SACWG AGM was the role that our modelling work can play in the Wattled Crane Recovery Programme, which is an intensive captive rearing and reintroduction programme run jointly between EWT and Johannesburg Zoo.
- iv) Quantitative Site Assessments (QSAs). I have also spent much time these past six months looking at alternative ways of quantifying important crane sites in a manner that is both scientifically robust and easy to use on the ground. Taking the Wattled Crane as an example: We split all known breeding sites into “Active” and “Historic” sites – the latter having been used at some point up until 2003, but not subsequently. We then clipped buffers to each site with radii of 200m, 500m and 1km, extracting the extent of each land-cover class for each site and buffer (from Katerina Wojtaszekova’s field work, we knew which “habitat types” were preferred by cranes for breeding at a very local level (within 50m); the two classifications of sites into Active & Historic allowed statistical identification of key land cover classification differences). For each land cover type (combining classes where appropriate), we calculated z-scores for each site. We were thus able to sort each land cover z-score, and flagged those scores more than one deviation away from the mean of zero (i.e. scores < -1.0 or > 1.0). Those which had “good” scores (eg positive wetland or, say, natural grassland scores were coloured green, as were low “negative scores” (eg crop cover was < -1.0); whilst high “negative” cover (eg plantation forestry > 1.0 or natural grassland < -1.0) were coded red.). Effectively we end up with four classes of sites: 1) Currently active and excellent breeding sites – these need to be monitored and brought into e.g. Stewardship Schemes; 2) Currently active but poor sites; 3) Historic sites but good habitat cover. These two classes are flagged for “rehabilitation” and will go through our partners for such action (see vii) below). Finally, the fourth class is historic sites, but with low habitat quality and thus ranking as our lowest priority in terms of conservation action. At our recent workshop (Sept/Oct 08), each SACWG staff member was a) re-aquainted with Excel, including formulae and graphics; b) re-updated on GIS techniques; and c) asked to carry out the QSAs on their “own” species and areas. The methodology and outputs was discussed with one of our partners (Kevin McCann, Ezemvelo KZN Wildlife, in charge of rolling out the Stewardship Programme) and he was extremely positive as to its relevance to practical conservation. Tanya Smith, a SACWG Field Worker with excellent GIS skills has been placed in charge of delivery on this project by agreed deadlines (a final draft report (for circulation to partners) outlining rationale and methodology etc, and including the ranking of all sites for each of the three species by region, should be completed by March 2009).
- v) Training: Two workshops were held in the past six months: one in June/July at Dullstroom, Mpumalanga; and one in September/October in KZN. This latter was held on the property of Mondi-Shanduka (one of the large agro-forestry companies in SA), who made their facilities freely available to us. Both workshops were concerned with consolidation of all the previous training SACWG and others had received to date, but both were structured so that staff took ownership for analysing

their “own” data. The Dullstroom workshop concentrated on running PVAs and their interpretation, whilst the KZN one was concerned with QSAs in the first instance, but then moved on to getting staff involved in writing their vision of a first draft of the Forward Strategy.

- vi) Environmental Awareness and Education. We work in partnership with the Community Leadership Group (CLG) of EWT, but both SACWG staff and the CLG are both active in EA and EE. SACWG staff, as part of their job description, are actively encouraged to bring crane conservation, and the wider ecological environment, to the attention of farmers, farm-workers, school children and interested citizens. The CLG is more concerned with a wider environmental remit reaching out into rural and often impoverished communities. However, by definition, the CLG work almost always involves wetlands, and hence cranes. Attached is a summary of the CLG’s wider work over the past 6 months. (Note, our Darwin Initiative is directly financing some of CLG’s activities – one of their staff, Bongisiwe Khosa, is one of 13 laureates for the WWSF Women’s World Summit Foundation Prize for women’s creativity in rural life. (See the website www.woman.ch/women/1-laureates.php for more information.). This accolade was only recently announced and I am currently discussing with EWT the appropriateness of placing the news within the DI domain).
- vii) Partnerships. Our referee has previously high-lighted our need to engage more pro-actively with our partners, and to a large extent this has occurred, with Kerry Morrison working closely with national and international crane conservationists, and Kirsten Oliver sitting on a number of working groups. However, Kerry and I are both of the opinion that a lot of our work with partners needs to be put onto a more formal footing, if necessary with written MOUs or TORs. This “formal” accountability is for mutual benefit, with systems put in place to ensure that eg data are on wetland boundaries are going to the correct person within Working for Wetlands, and that the recommendations regarding stewardship are fed through to the correct department with, say, Ezemvelo KZN Wildlife. Reciprocally, SACWG needs to know that its data are being used and its recommendations being acted upon (or, if not, why not). Further, SACWG needs to be part of the wider conservation community within SA, and thus participate in & benefit from horizon scanning, large international grant applications etc. Kirsten Oliver has been tasked for setting up such systematic procedures with each of our partners.
- viii) Business Plan: This is addressed in more detail in 2) below, but we have not carried out the planned activities here, although Kerry Morrison, Debbie Thiar (Programme Administrator & Co-ordinator) and I have discussed the best way(s) forward.
- ix) Forward Strategy: We (Kerry Morrison & I, together with the CEO of EWT, Yolán Friedman) believe this to be a critical springboard for SACWG to go forward once Darwin funding ceases. To this end, we spent more than two days at the KZN workshop discussing the Forward Strategy with SACWG staff, including getting them to carry out various written exercises before asking them to write their “own” Forward Strategy for “their” species and area, using a fixed framework of “Objectives, Aims, and Tasks”. We have also had the input of an ex-SACWG Manager who now works for Ezemvelo KZN Wildlife (Kevin McCann) into this task, and the overall thrust of the current Forward Strategy was presented by Helen Prinsloo at the SACWG AGM, where we received further feedback. Kerry & I are currently doing one further iteration of this communal effort, before sending it to four “crane experts” (Dr Warwick Tarboton (ex-BLSA President), Dr Jim Harris (ICF), Kevin Shaw (Cape Nature) and Kevin McCann (Ezemvelo KZN Wildlife). Once we have received their comments, we will redraft the strategy, which will be circulated to all SACWG staff by February 2009. We are having a workshop in February 2009 where three of the above four “experts” will help to lead the SACWG staff in redeveloping their individual strategies in the context of the two key pieces of conservation legislation in South Africa, namely the Protected Area Act and the Biodiversity Act. We will then invite 10 – 15 of our other partners (eg SANBI,

Working for Wetlands, CSIR, DEAT, Provincial conservation departments, WWF-SA, BotSoc etc) to join us over two days and critically assess the presentations we (SACWG staff) will give of their vision of the Forward Strategy. This will allow a final iteration of the strategy to be completed before its launch in May 2009.

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 FOLLOWING IS CONFIDENTIAL – and has been removed from the document for public consumption

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Therefore, I hope the overview provided in 1) above alongside the specific issues dealt with here in 2) will reassure both Darwin and the referee that we are on track to achieve a considerable impact on crane conservation in South Africa. If there are further queries or concerns, please contact me.

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

NOT AT THIS POINT

Discussed with the DI Secretariat: no

Changes to the project schedule/workplan: no

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 SEE 2) ABOVE, NOTING NEED FOR CONFIDENTIALITY

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 email** to Eilidh Young, Darwin Initiative M&E Programme at Darwin-Projects@ectf-ed.org.uk . The report should be between 1-2 pages maximum. **Please state your project reference number in the header of your email message eg Subject: 14-075 Darwin Half Year Report**