Darwin Initiative: Half Year Report

(due 31 October 2010)

Project Ref. No.	*17-008*
Project Title	*Can Hunting and Conservation of Endemic Annamite Ungulates be Reconciled?*
Country(ies)	*Vietnam (Lao)*
UK Organisation	*Department of Geography, University of Cambridge*
Collaborator(s)	*WWF Greater Mekong Vietnam Programme; Vinh University*
Project Leader	*Nigel Leader-Williams*
Report date	*31/10/10*
Report No. (HYR 1/2/3/4)	*1*
Project website	

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).**

Lectures by DICE staff at VN Universities

The project officer, NMW gave a lecture to over 200 Vinh University undergraduates on their annual field trip to Bach Ma National Park (03/07/10). The lecture covered the basics of ecological survey design. Further open lectures will be given in the second half of the year by visitors and staff coming to deliver short training courses.

Development of new teaching materials

Following decisions made at the planning workshop in Vinh in March 2010 (see first year report for details), development of new teaching materials will for the main part follow the short course format. No short courses have yet taken place, but a course on Social Science Methods is at an advanced stage of planning, and will be lead by Dr Rajindra Puri, Department of Anthropology, University of Kent during November 2010. English language materials for this upcoming November have been sent by the course leader and are currently being translated into Vietnamese. New English language materials for a course on Ecological Survey Methods, planned for February 2011, have also been prepared by the course leader, Dr David Sewell, DICE, University of Kent.

Training for Vietnamese University Staff

It has been agreed that young lecturers, as well as masters students, will attend some of the above short courses. Additional funds are being sought by DICE for training.

Community mapping training

The course on community mapping training was given in FY1. On-the-job training was given in the current period by the Project Officer to the two students (Luong Van Duc and Nguyen Thi Thu Hieu, Hue University) conducting community mapping. Further formal training will be included in the course on social science methods but this has been delayed to the first week of November (see above) to fit the schedule of the course leader. Further students from Hue and Vinh University, and one Hue University lecturer (hired as a consultant) have been selected to continue the community mapping work and will attend the course.

Community mapping in Hue Quang Nam

This work has been completed in three communes of Nam Dong district. Data from the fourth commune of Thuong Nhat are incomplete, as this commune has only been covered by students on the training course. Twenty-four priority villages have been fully covered, and ungulate distribution and forest product data collected. It is estimated that an equal number of villages remain to be covered. The work has been carried out by two students from Hue University (Nguyen Van Duc and Nguyen Thi Thu Hieu) who have received local studentships from the project and will write up the results for their masters dissertations (drafts have already been sent to the Project Officer for review).

The method used to gather data about forest use and perceptions of ungulate distribution was developed and trialled by the Project Officer in a pilot study in 2008. It is based on the placement of beans on the base map, during group interview sessions. The density of beans is used by the interviewees to indicate their perceptions of the relative density of different species, or of collection of forest products.

Although the community mapping data collection are not fully complete (see section 2), Duc and Hieu have already conducted GIS analyses for their each of their dissertations, with significant support from the Project Officer and Ong Dinh Bao Tri (WWF Quang Nam). Hence the process of converting the 'bean' data from the maps into usable GIS raster layers, and for analysing the ungulate distribution data using the software ZONATION (which includes an uncertainty analysis) have been developed and can be easily re-employed on the full dataset.

Rangewide community mapping

Two masters students at Vinh University have been selected for local studentships to conduct research involving community mapping around Pu Mat National Park: they will also attend the training course in November. Meetings are scheduled in November with further students who are also staff of the protected areas Pu Huong and Vu Quang, and who will also attend the training course.

Training in GIS

This course will be conducted by a Vietnamese trainer, as per decision during the March 2010 workshop. A suitably qualified trainer has been identified, and the course is now planned for December 2010.

Species distribution modelling

The data on Saola distribution almost exclusively comprises interview records, and so provides a challenge to traditional modelling techniques. To even store this data in a system that allows their systematic analysis is a technical challenge for which we have fortunately been able to employ a member of WWF staff with significant programming skills (Ong Dinh Bao Tri).

A spatial database format has now been developed that allows the storage of these spatially imprecise data on Saola records. Furthermore, a scoring system has been developed within the database to score these records for accuracy of identification, location and date. The next step will be to review all records in the newly formatted database. Following that, a simulation-based approach needs to be developed to allow a distribution model to be run with these data. This represents a novel research technique, so success is not assured. However, the Project Officer hopes to seek advice in Cambridge in January and has also received offers of collaboration from interested researchers in the USA and Vietnam.

Meanwhile, a draft protocol is being developed for collecting further Saola records from interviews. This is based on extensive reading in anthropological survey methods and cognitive approaches to survey design. It will be finalised following the November training course in Social Science Methods and sent to the IUCN Saola Working Group for review and distribution in Vietnam and Lao.

Conservation biology training at DICE

Two students from Vietnam began their MSc in Conservation Biology at DICE in October 2010. They are: Nguyen Xuan Truong (Thua Thien Hue Forest Protection Dept) and Nguyen Anh Quoc (WWF Quang Nam). After several months of work by the Project Officer during April – July in finding, encouraging and supporting candidates, extensive support was provided to the two final applicants for the application process for the University of Kent, and for UK visas. English language training and tests represented significant personal investments by both candidates. One candidate Nguyen Xuan Truong is concentrating on spatial data collected by patrols. The other candidate Nguyen Anh Quoc is concentrating on hunting and trade.

Landscape wide snare and habitat surveys:

Component 1: Following the Steering Committee decision in FY1 (see first year report), this activity concentrated on making the best possible use of the data collected by patrol teams.

The progress of this activity has been strongly linked with the progress of other WWF initiatives, both at the site and regional levels, so we present some background here. WWF's application to the Critical Ecosystem Partnership Fund for USD 243,674 was successful, and a project entitled *Safeguarding the Saola* and focused on direct conservation action is now underway in the Hue – Quang Nam landscape. The CEPF proposal provides significant support to enforcement but is explicitly linked to the current project following the model for research-action synergy developed at the Inception Workshop (see FY1 report).

Since May 2010, WWF has decided to devote considerable extra effort to revising the model for patrolling in the area and in raising funds to support this. One expected development is the hiring of 'forest guards' directly by WWF to support the government rangers. Some forest guides will be hired from local communities. Of particular relevance to the current Darwin project is that discussions about enforcement strategy have highlighted several important lacunae in our knowledge which research of the kind planned by this project could support.

Another aspect of WWF's increased work on effective enforcement is the uptake of the software MIST (Ecological Software Solutions) which, despite certain recognised failings, is being implemented as a standard in reserves involved in the Global Tiger Initiative.

In May the Darwin Project provided support to a training course on management of patrol data for rangers from the Hue Saola Reserve, Bach Ma and Quang Nam, with co-funding from the Russell E Train Foundation.

Due to unexpected delays in the launch of the CEPF project, the decision was made to directly support ranger patrols in the three protected areas with Darwin funds in order that the current activity could proceed on schedule. Contracts were signed with the management boards of Bach Ma National Park and the new Saola Nature Reserve (Thua Thien Hue) and with the Forest Protection Department of Quang Nam. As a result, four 7-10 day patrols were carried out in each of the three areas, and the Project Officer accompanied two of these patrols.

In September 2010 a training course focused on the MIST software and associated field data collection was held in Huai Kha Kaeng National Park in Thailand. Other funds from WWF supported the attendance by national staff based in the provinces and one staff of each of the 3 protected areas (in the case of the Quang Nam Saola reserve, which is not yet established, a member of the district forest protection department attended). Darwin Project funds were used to support the Project Officer's attendance.

The most important output to date has been the production of a datasheet for the patrol teams The datasheet is has been revised five times (before, during and after the May workshop, after each field trip by the project officer) and a sixth revision is pending following the September MIST workshop and experience of the system used in Huai Kha Kaeng and experiences shared by other WWF staff working in the region.

Great attention has been paid to the design and translation of the datasheet. It aims to make data recording by patrols simple, clear and effective. This contrasts with some prior data collection procedures in Vietnam and elsewhere in the region which may be either so time consuming as to interfere with effective patrolling (or be abandoned in practice) or to provide data whose interpretation is ambiguous. Extensive feedback from the rangers themselves has allowed many difficulties and ambiguities to be resolved and data have been returned from all patrols conducted so far.

Training in software MIST (supported by WWF for application throughout region) revealed potential for month-to-month management that is not matched by reporting on year-to-year planning. Annual reports as currently produced by the software take a naïve attitiude towards statistics and are therefore quite misleading regarding distribution and relative abundance of threats and indicator species throughout the reserve. Plans in development to investigate more robust approaches to analysing these data using occupancy statistics. An intern from a Belgian university is due to start next year to assist with this unexpected new research area.

Component 2: Although we expect to hugely improve the quality of data collected by patrols and hope to revolutionize the techniques employed for their analysis, it has become clear that fundamental limitations in these data may still exist and independent means of verification are required. Furthermore, while teams can collect extensive data on threats, it interferes with their main function of patrolling, if they are also asked to collect habitat data.

Consequently, the Project Officer was accompanied during July 2010 by Pham Doan Vong, a student of Hue University, on a field trip in Bach Ma extension to design a field survey method to assess the distribution, in space and according to habitat type, of threat factors, habitat factors and indicators of ungulate abundance. A method was designed based on randomly located 200 x 200 m quadrats. Mr Vong (who is a member of staff of the park as well as a student) has written a research project proposal for his university based on this method. If successful, the project will offer him a studentship and he will start work in December.

Targeted Saola surveys

The SC meeting in March decided that investment in focused survey methods for Saola, using such methods as detection dogs, camera trapping and telemetry, were not worthwhile investments for the project. WWF, WCS and the Saola Working Group are seeking independent funding for *some of these endeavours. Nevertheless, the Project Officer has provided advice on an* ad hoc basis.

Nevertheless, the increased patrol effort and the habitat and snare surveys conducted by the Darwin project provide an opportunity to support future targeted surveys. A datasheet and data collection protocol for putative Saola feeding sign have been created for the patrols and training given to rangers in A Luoi and Bach Ma to record details. Pham Doan Vong of Hue University and Bach Ma, together with any other students working in the field, will also be able to record such putative sign. By either collecting dung samples associated by the sign, or by notifying WWF researchers of the presence of sign, the wide coverage achieved by the patrols greatly increases the chance of Saola detection in the landscape. Possibilities to apply the same patrol data collection system to reserves in the northern central Annamites, mainly using independent funding but with some Darwin project support, will further increase this potential.

Some indication of possible success has come from the detection of probable Serow (*Naemorhedus milneedwardsi*) dung in Bach Ma National Park, as a result of the Project Officer following up on information from a patrol ranger. Previous Saola surveys by the Project Officer dating back to 2006 had failed to find any ungulate dung, even of the more common serow, suggesting that such methods might never yield sufficient records of the dung of the much rarer Saola. This year's Serow dung was detected by the Project Officer following up on a lead given by a ranger on patrol to an area of extensive feeding sign, of the kind for which the Project Officer had previously searched in vain. This gives some cause for hope that, if the project is successful in improving data reporting by rangers, then the increased survey effort might detect enough records of Saola feeding sign that eventually lead to records of Saola dung in the same location.

Six recent (within 2010) interview records of Saola sightings were made during the course of the community mapping survey.

Bioeconomic modelling

Community mapping activities have been collecting baseline data for bioeconomic modelling. This activity needs to be completed and additional surveys are required to gather basic economic data in a subset of communes. We had planned that the students currently at DICE would collect these data before departing for the UK but, in the event, this proved not possible. We now hope to hire an intern, perhaps a recent UK masters graduate, to conduct this work beginning in February. Work by this intern may also directly investigate options for community-based conservation at the same time in order to inform more short-term conservation plans by WWF and Bach Ma National Park. See following section for details.

Research planning workshops

A first draft of the report from the March workshop on Community-Based conservation has been produced. We consider that, while all pertinent issues were raised at the workshop, discussions did not reach clear conclusions. We therefore feel that the most appropriate output should contain a review by the project team detailing the conclusions we draw from the information and opinion presented at the workshop and which will hopefully form a point for further discussion.

We have begun work on this; constructing alternative results chains for community conservation options for Saola. The number of availablemoptions is limited at present due to the limited options for establishing use rights. In particular, hunting rights are a very sensitive topic. From this work, we derive the following three recommendations for our project.

1) Become involved with the efforts at Bach Ma which aim to institute sustainable management of NTFPs (though not wild meat) in a protected area. This is perhaps the best current opportunity for CBC based on extractive use in Vietnam.

2) Research the legacy of the sustainable hunting project funded by Danida in Pu Huong Nature Reserve, to examine the reasons for its apparent lack of success.

3) Investigate opportunity for models of CBC based on external funding for community benefits.

Note that we hope to employ young UK researchers as interns to assist with part of this work See preceding section for details.

Protected Area Management Planning and Zonation

The Hue Saola Nature Reserve was successfully established following a meeting supported by the project in April. A parallel meeting regarding the Quang Nam proposed nature reserve made significant progress and establishment is expected later this year.

Work with MIST (see above) will potentially revolutionize protected area management planning in the Central Annamites, especially as it has strong support from WWF and other donors. We hope that the contribution of our project will be to ensure that data used for management are as accurate as possible and are analysed in a logical and effective way for supporting year-to-year management.

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.

Training for Vietnamese University Staff

No appropriate candidates from Vinh University were found to take the masters course at DICE. English language requirements were the major obstacle and we estimate a full year's training would be necessary for any of the applicants we received. This is unfortunate as the DICE masters was expected to form crucial training for a key staff member to help them teach materials developed by the project in future. Discussions with DICE about alternative funding sources are being pursued. A year's notice is likely to be necessary.

A related setback has been that both the candidates who were found were in full employment up to the date of their departure and, additionally required extensive English training. This meant that we were not able to employ them as planned on preliminary fieldwork prior to their coming to DICE. This has delayed our progress on collection of socio-economic data and, hence, on bio-economic modelling. A solution needs to be found in the remainder of the year.

Community mapping, Hue-Quang Nam

While this activity was successful, delays in starting related to the procedure of permissions, led to a mismatch between the project timetable and the academic year. The two masters students needed to finish and write up before the whole area was covered.

With additional support from CEPF, we will cover the remaining area (A Luoi district and north Quang Nam) in the remainder of the financial year. A third masters student from Hue University has been selected and a young lecturer from Hue will be hired as a short term consultant to complete this work. The exact number of relevant villages remaining is not certain as, before village visits, the overlap of village use area with protected areas is not known, therefore we do not yet know how many villages use our area of interest. However we believe it to be approximately equal to the number already surveyed.

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

No

Discussed with the DI Secretariat:	**no/~~yes~~, in……… (month/yr)**
Changes to the project schedule/workplan:	**no/~~yes~~, in……….(month/yr)**

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3. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?

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. N/A

Please note: Any <u>planned</u> modifications to your project schedule/workplan or budget should <u>not</u> 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**