

# Darwin Initiative: Half Year Report

(due 31 October 2007)

<b>Project Ref. No.</b>	14-025
<b>Project Title</b>	Developing integrated assessment of biodiversity in secondary forest in Belize
<b>Country(ies)</b>	Belize
<b>UK Organisation</b>	Centre for Ecology and Hydrology
<b>Collaborator(s)</b>	Natural History Museum UK, Belize Audubon Society, Wildtracks
<b>Project Leader</b>	Lindsay Maskell
<b>Report date</b>	October 31 <sup>st</sup> 2007
<b>Report No. (HYR 1/2/3/4)</b>	Hyr3
<b>Project website</b>	<a href="http://www.ceh.ac.uk/sections/eaf/EAFBiodiversityassessmentinBelize.htm">http://www.ceh.ac.uk/sections/eaf/EAFBiodiversityassessmentinBelize.htm</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).**

## Field collection of data

Vegetation plot sampling and general botanical sampling continued through the second quarter of 2007. By this stage all of the 3 study sites had been sampled to varying extent, with the number of survey plots in each site being dictated partly by logistics and weather conditions. In late May, sampling was undertaken in the more remote areas of Cockscomb in old-growth forest that will act as a control sample in the project design. In addition to completion of sample plots in this old growth forest, botanical surveys continued beyond the footprint of the plots and added considerably to the botanical knowledge of this species-rich area: several new plant records for Belize were recorded during this field trip.

Amphibian surveys were undertaken in Fireburn and Cockscomb. Bat surveying has continued with deployment of the Anabat equipment across the past land-use mosaics, primarily in the Fireburn Reserve and in the Cockscomb Basin Wildlife Sanctuary.

Data collection in the Fireburn Reserve was curtailed by the significant impacts of Hurricane Dean in August, with an estimated 90-95% tree-fall in some areas. Considerable time was required to retrieve the automated bat-recording equipment that was deployed at Fireburn at that time, and assessing the logistical obstacles to resuming sampling in the post-hurricane forest.

## Identification of Botanical specimens

Once the botanical field sampling had been completed one set of botanical specimens were shipped back to the UK to allow formal identification. The botanist, Zoe Goodwin, spent 3 months working in the herbarium at the Museum of Natural History in London identifying species and updating species lists. Where identification was not possible at the Museum specimens were sent to the appropriate expert. This was excellent work, the field collection has been identified as far as possible. Several plants new to Belize have been found.

## Training

Along with herpetological field sampling, training of additional personnel took place – with a total of 27 students and park staff receiving training.

**Data validation**

The work at the Natural History Museum mentioned above is extremely important for validation of species identification. These have been added to the database. Data on other taxa has been validated, and is now being entered into the database.

**Data analysis**

Analysis of botanical data has begun with preliminary investigation of the data and determination of analytical techniques. A workshop for all project participants is planned for December to discuss Integrated Assessment, analytical techniques and discuss results.

**Students**

Two Masters students have completed research dissertations in association with this project. One in botanical inventory of Cockscomb and one analysing patterns in botanical data. 17 students from the University of Belize have received basic training in field herpetology, and 2 in botanical sampling during this period of the project. Student response has been good, with a promising rate of uptake of ideas and likely continuation.

**Networking/links to other projects/activities.**

Building on the collaborative relationships forged earlier in the project, work has largely focused on continued data collection and data management over the last 6 months. Networking has largely been at the level of maintaining liaison with partners, rather than forming new additional links.

**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.**

Hurricane Dean hit the Belize/Mexico border as a Category 5 hurricane on 21<sup>st</sup> August. This directly impacted our most northerly study site. It was extremely lucky that the hurricane had less effect than predicted on the property and infrastructure of our project partners in Belize, however there was substantial damage to the forest at the study site. Botanical fieldwork has finished at this site however there is some outstanding collection of data for other species groups. The main effect that this has event has had on our study is that time has been spent clearing up from hurricane damage yet also assessing the damage to the forest by field visits and overflight and attempting to link previously identified plots to current impacts. Some planning will need to be incorporated to look at re-generation from hurricane impact.

The workshop on Integrated Assessment has been postponed from May to December. There were two reasons for this 1. The project was still in data collection phase, this includes primary data collection and subsequent identification of specimens so the completed updated database has only just been finished.

2. The project leader is also a key member of staff for the UK Countryside Survey. The field survey for this very large project has been taking place this summer and it has impacted on project leaders input. This will be discussed with the Darwin secretariat.

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

No I am about to contact the Darwin secretariat.

**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?**

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 email** to Eilidh Young, Darwin Initiative M&E Programme at [Darwin-Projects@ectf-ed.org.uk](mailto: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**