Department for Environment Food & Rural Affairs

DARWIN INITIATIVE

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Darwin Initiative Main/Post/D+ Project Half Year Report

(due 31st October 2018)

Project reference	23-014
Project title	Improving livestock management for economic-environmental stability in Mesoamerica's Mosquitia
Country(ies)/territory(ies)	Nicaragua, Honduras
Lead organisation	Wildlife Conservation Society
Partner(s)	National University of Honduras
Project leader	John Polisar
Report date and number (e.g., HYR3)	1 April 2018 – 30 September 2018
Project website/blog/social media etc.	No specific project website, but links to News Releases and blogs focused on project area are pasted below: https://blog.nationalgeographic.org/2018/07/17/keeping-carnivores-connectivity-and-culture-intact-in-mesoamericas-moskitia/ https://blog.nationalgeographic.org/2018/07/21/mantener-intactos-los-carnivoros-la-conectividad-y-la-cultura-en-la-moskitia-de-mesoamerica/ https://newsroom.wcs.org/News-Releases/articleType/ArticleView/articleId/11349/Joint-Study-by-WCS-Yale-Identifies-Challenges-and-Opportunities-to-Safeguard-One-of-Mesoamericas-Last-Forest-Blocks.aspx https://law.yale.edu/yls-today/news/wcs-yale-clinic-release-report-preserving-moskitia-forest-corridor

1. Outline progress over the last 6 months (April – Sept) 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 to end September).

During this period, we have built on the conservation momentum established by the project's foundation, and amplified critical conservation messages and advocacy. A joint WCS-Yale University white paper was released based on findings from Yale's Environmental Protection Clinic students that WCS hosted last year with Darwin project-supported travel and meetings in both countries to evaluate conservation challenges and opportunities. In July of 2018, project leader John Polisar produced outreach (see links above) advocating for large scale bi-national forest conservation, which was based on combined findings from the joint WCS-Yale white paper and a Rapid Ecological Assessment in forests near the area, and obtained attention from the highest levels of the Honduran government. Through orders from the Honduran President, a public-private foundation, Kaha Kamasa, is being developed to protect Mesoamerica's second largest forest and its people over the long term. Although in the early stages, significant advances have been made and this is a potentially paradigm-shifting opportunity to galvanize sustainable, high impact political support and funding to ensure the invaluable cultural and natural heritage of the Moskitia. WCS has been invited to form part of the technical board and advise on the structure and functioning. Our goal to ensure that during the formative period, we guide the Foundation along a wise, holistic, and truly participatory path forward with meaningful participation and benefits to indigenous communities. The platform and knowledge provided by the Darwin project, combined with a high-profile archaeological site, enabled us to meaningfully contribute to this large scale, high-profile conservation initiative.

On the other hand, in Nicaragua severe socio-political disturbances from April 19 through the end of September made travel to the field sites more challenging. Despite political difficulties outside of our control, we were able to advance the following: 1) Towards the end of Year 2, we evaluated all of the silvopastoral systems and delivered more materials to those that needed them; with abundant rains, the systems are likely flourishing; 2) During the months of protracted socio-political upheaval, we shifted our focus to concentrate on processing and analysing data, with the following advances:

1. Analysis of the baseline data set of bird captures with mist-nets and point counts identifying statistical links between species and three vegetation types (pasture, second growth recovering from pasture, and forest) near indigenous communities. Several different multi-variate exploratory analyses were completed to identify biological indicators for measuring changes in bird biodiversity as a consequence of Darwin silvopastoral management, and monitoring.
2. 19 bird species were identified as indicators of vegetation types using mist-nets, and 7 species as indicators using point counts.
3. Data reduction and multi-variate analyses were conducted and the team began to draft a paper using the results of Darwin supported camera trap sampling in Nicaragua, using several complementary data sets: a) three bands of sampling conducted with Darwin support in 2017; b) camera trap data sets from core areas; and c) linear foot transects – to examine distance-from-village, land-use-types, and territory effects.
4. The sampling identified a group of generalist mainly small bodied mammal species linked to areas near communities, with high human influence; and a few species, some larger body-sized, linked to well-conserved forest far from communities. We did obtain photo-captures of jaguars and white-lipped peccaries relatively close to villages and Darwin supported silvopastoral systems in the baseline.
5. All Nicaraguan data were entered into WildID camera trap database software. The Honduran data is currently being entered into Wild ID. Between the two countries and over the long term, we have ~ 12,000 images. When all the data are ready in WildID, we will conduct a unified transboundary occupancy analyses of the areas where we have initiated farm improvements in both countries and remote sites. This large-scale occupancy modelling analysis will allow us to examine and describe spatial-temporal trends of mammal distribution in Moskitia across three biosphere reserves, four ethnic groups, and two countries. This will include the baseline and impact-evaluations of the Darwin farm improvements and conservation agreements.

The migratory bird season (November-March) will soon be upon us and crews are preparing in both countries to renew sampling and evaluate performance in improved livestock management.

John Polisar (project lead) has presented the Darwin-supported work to: 1) an assembly of 45 people from 17 institutions developing a strategic framework for jaguar conservation range wide published by World Wildlife Fund (WWF) http://www.wwf.org.co/?uNewsID=336411; 2) attendees of the Applied Transboundary Mammal Research in the Americas symposium held in the North American Congress of the Society for Conservation Biology in Toronto; and 3) a small group in the United Nations Development Program (UNDP) Secretariat in New York City. Some of the initiatives established with Darwin support were included in the draft of 2030 Jaguar Conservation Road Map for the Americas, a document developed by the UNDP, Panthera, the Wildlife Conservation Society, and WWF to guide a range-wide GEF 7 jaguar (and integrated landscape conservation) initiative that is underway, and other large-scale conservation funding.

2a. Give details of any notable problems or unexpected developments/lessons learnt 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 late April to September 2018 political turbulence in Nicaragua was unexpected, and while the silvopastoral systems continue in the territories, numerous road blocks impeded travel. Despite these challenges, the Nicaraguan team pivoted and was able to significantly advance data reduction and analyses.

In Honduras, there were some administrative challenges during the sub-grant award process with the National University of Agriculture. However, we were able to elevate conservation issues and opportunities to very high levels in Honduran society and are on the cusp of making substantial large-scale impacts.

The obstacles encountered in the last six months are routine delays in this challenging arena, similar to those already overcome in prior project years. It is unnecessary to seek any adjustment in either the timetable or funding at the moment.

2b. Have any of these issues been discussed with LTS International and if so, have changes been made to the original agreement?

Discussed with LTS:	Yes/No
Formal change request submitted:	Yes/No
Received confirmation of change acceptance	Yes/No

3a. Do you currently expect to have any significant (e.g., more than £5,000) underspend in your budget for this year?

Yes ☐ **No** **X** ☒ Estimated underspend: £

3b. If yes, then you need to consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a rebudget Change Request as soon as possible. There is no guarantee that Defra will agree a rebudget so please ensure you have enough time to make appropriate changes if necessary.

4. 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. Additionally, if you were funded under R24 and asked to provide further information by your first half year report, please attach your response as a separate document.

Please note: Any planned modifications to your project schedule/workplan can be discussed in this report but should also be raised with LTS International through a Change Request.

Please send your **completed report by email** to Eilidh Young at Darwin-Projects@ltsi.co.uk . The report should be between 2-3 pages maximum. **Please state your project reference number in the header of your email message e.g. Subject: 22-035 Darwin Half Year Report**