



Darwin Initiative Main Project Half Year Report (due 31 October 2015)

Project Ref No	21-003
Project Title	Protecting Ugandan endemic cycads from biodiversity loss and trafficking
Country(ies)	Uganda, RSA, Thailand, China, Philippines
Lead Organisation	Royal Botanic Gardens, Kew, UK
Collaborator(s)	JERA (Uganda), SANBI (RSA), Nong Nooch Tropical Botanical Garden (Thailand), Fairylake BG (China), De La Salle Univ (Philippines).
Project Leader	Prof Hugh W. Pritchard
Report date and number (e.g., HYR3)	31 Oct 2015, HRY2 (April – Sept 2015)
Project website/Twitter/Blog/Instagram etc	NA
Funder (DFID/Defra)	Defra

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).

MoU: The JERA MoU is signed and the other relations have been consolidated through letters of agreement that make intentions clear, based on advice from Kew convention's team; with the exception of Fairylake (China) – see comments in 2a below.

Meetings of partners: There have been a series of meetings in the first 6 months of Y2.

June 2015: Kamoga and Luwemba (JERA) visited Xaba (SANBI) for training, and project discussion (10 days);

Aug 2015: Project manager Sacande (UK) met Kamoga (JERA) at Busia, Uganda to discuss progress (1 day)

Aug 2015: Xaba (RSA) visited Pritchard (UK) for lab work (parallel funding from Bentham-Moxon Fund) and project discussions (2 weeks);

Aug 2015: Lindstrom (Thailand), Xaba (RSA) and Agoo (Philippines) met at the 10th International Conference, Colombia (1 week)

The popular article on the project, due for submission in Y1, has now been published in Trees – Journal of the International Tree Foundation, volume 72, pp10-11. 'Cycads – bringing ancient plants back from the brink.' Pritchard HW, noted to be working closely with Kamoga, Xaba and Lindstrom (<http://internationaltreefoundation.org/wp-content/uploads/2013/02/Trees-Journal-Oct-2015.pdf>). The timing of publication of Trees was convenient compared with the publishing deadlines for other suitable newsletters.

Output 1 - Increased biodiversity knowledge for NDF on Ugandan endemic and endangered cycad:

1.1 Agreements – No developments expected in this period.

1.2 Field visits - In (March), April, May and July 2015, JERA staff were in the field documenting seed sources from natural populations of *E. whitelockii* (Mpanga) and *E. equatorialis* (Luwerere) (10-40 individuals each). The distribution of the first species was geo-referenced, and the species found to be skewed, with males dominating. For populations of both species the plants have been marked and coning has been assessed monthly through to September. A number of individuals for the third species are known but were not regularly recorded during this interval.

In June 2015, a reciprocal visit was made by two JERA staff (Kamoga and Luwemba) to RSA to reinforce autecology and population biology knowledge through field training in the Eastern Cape Province (10 days in total, but including other topics; see Output 4).

1.3 Elasticity analysis – As noted in the Annual Report to Y1, a modified analytical approach will be taken when the data collection is completed.

1.4 Collect phenology data - The Meteorological Department of the Government has been approached for relevant data (temperature, humidity) for the respective sites. Awaiting reply.

1.5 Papers - No developments expected in this period.

1.6 e-compendium on biology and cultivation – The partners have agreed that the compendium should try to cover about 40 species, i.e. more than half the genus. Pritchard will be an invited speaker at a congress in Thailand in March 2016 and will work for a few days at NongNooch on the compendium species information, at minor cost to the project.

Output 2 – Improved monitoring of cycad trade

2.1 JERA staff trained in micro-chipping – During the training visit of JERA staff to SANBI in June 2015, the use of micro-dots as a security marking for cycads was demonstrated.

2.2 Mature plants identified for microchipping – Plants have been identified for two species.

2.3 Plants microchipped by end Y2 - No developments expected in this period.

2.4 Project reporting to focal points – No developments expected in this period.

2.5 Training of enforcement officers using CITES CD Rom - No developments expected in this period.

2.6 Collate trade data – Some data on trading has been accessed through the CITES office in Uganda; although it has not been shared yet with the project team. WCMC will help to validate the information.

Output 3 - Reduced demand for wild sourced cycads:

3.1 Market survey - During the period (March-)April 2015, market surveys were conducted in three areas of Fort Portal, Kasese and Ibanda. Each town is separated by 50 – 100 km, thus providing a good sample of cycad market activity in western Uganda.

3.2 and 3.3 Plot for nursery – A small nursery at Luwerere (for *E. equatorialis*) has been agreed. The nursery has been planned for Kabeza Village (Mpanga) and is being implemented as seeds of *E. whitelockii* have been collected. Elders on the opposite side of the Mpanga river have suggested another small nursery for this species. The cost implications and sustainability of running it is being reviewed by JERA. Progress is still slower that we would like, but the community relationships take time to develop.

3.4 Replanting of seedlings in the natural habitat – No developments expected in this period.

3.5 Sell surplus seedlings - No developments expected in this period.

Output 4 - Strengthen capacity in cycad cultivation and KT:

4.1 Train two Ugandan staff - An under-commitment to training in Y1 due to visa (and other) issues in China, has been balanced by extra training in RSA. In June, over a 10 day (2-working week) period, two staff of JERA (Kamoga and Luwemba) were taught nursery skills, including artificial pollination, shown how to apply CITES non-detriment findings, introduced to the principles of *in situ* and *ex situ* conservation, guided on the topic of cycad pollinators and

introduced to the principles of cycad research, based on the work of collaborator Xaba. Xaba will visit Uganda in Nov 2015 to reinforce the fieldwork training.

4.2 In house training – Lectures to students of Makerere University is planned for the first quarter of 2016. Pritchard is looking at a schedule for a visit.

4.3 Y3 project workshop - No developments expected in this period.

4.4 Cascade training to De la Salle Univ – Anticipated for Y3, but a short training visit by Xaba to the Philippines (and Thailand) has been agreed for early 2016; mainly using parallel / gift-in-kind funds.

4.5 JERA-SANBI connections - Progressing well, with reciprocal visits in June and November 2015.

4.6 Species information leaflets – no progress reported as yet.

4.7 Present at scientific meetings and public talks – In September 2015, Pritchard introduced the project within a public lecture on conservation at the Arnolfini Gallery in Bristol (as an invited guest of the Univ of Bristol Botanic Garden). He has also provided a slide on the project for senior management to present to Kew's sponsoring department, Defra.

Output 5 – Community cycad projects established in Uganda:

5.1 Community consultation – No developments expected in this period.

5.2 – Agreement between JERA and communities – No developments expected in this period.

5.3 Appoint nursery project manager – Work is underway with about 40 people each of two communities. No single nursery project manager has been appointed. Rather the communities are taking responsibly as a whole.

5.4 Train local people – Training of local people in Mpanga in cycad propagation is scheduled for late 2015.

5.5 Cycads for children - Information is being gradually generated for use, and awareness materials will be out in November 2015. Locally generated project outputs will be used in the awareness material so that the children will see the contribution the community is making to the field activities. The wish is for the children to connect with nature based on the example of their community's participation. Awareness materials will entail: understanding the basic biology of cycads; uses of cycads; why and how to protect cycads; simple ways to share information about cycads. One suggestion being pursued is to have an annual school cycad campaign in the region. On a related matter, two JERA staff were involved (June 2015) in the launching at SANBI of the 'Cycads and Dinosaurs' Exhibition at Kirstenbosch National Botanic Garden.

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 main challenges have been:

1) Dennis Kamoga (JERA) was involved in a motorbike accident and this delayed fieldwork in the late summer. However, P Xaba (SANBI) is due in Uganda in early November 2015 to carry out collaborative fieldwork with JERA, bringing the project back on track.

2) The continuing challenge of good communications with Uganda. This is not just from the UK to Uganda but also from RSA to Uganda. Regular Skype comms has been attempted but is not working well. Even though the report from Kew project manager Sacande following his visit to Uganda in August 2015 was on the whole positive, Pritchard will visit Uganda in early 2016.

3) The realisation that the working relationship between Fairylake Botanic Garden (China) and NongNooch Botanic Garden (Thailand) is unlikely to develop, perhaps as both of these institutions in SE Asia have large, and competing ex situ cycad collections as part of their offer

to the public. This may explain why the project team failed to enthuse Fairylake when they visited in September 2014. As the second year has progressed, the interaction between Nongnooch, La Salle Univ and SANBI staff has become stronger. At the 10th International Conference on Cycad Biology, partners Lindstrom, Agoo and Xaba planned a programme of training in pollen handling, that will result in Xaba visiting Thailand and the Philippines in early 2016 to share his considerable knowledge.

4) The announcement that the new project manager at Kew, Dr Moctar Sacande, decided to leave Kew's employment. Dr Charlotte Seal, who has considerable knowledge of plant ecophysiology, has agreed to join the project and assist the project leader.

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 Estimated underspend: £

3b. If yes, then you need to consider your project budget needs carefully as it is unlikely that any requests to carry forward funds will be approved this year. 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 and would like to talk to someone about the options available this year, please indicate below when you think you might be in a position to do this and what the reasons might be:

NA

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

The strong axis between SANBI and Nongnooch, and the size of their ex situ *Encephalartos* collections, is considered sufficient to enable the delivery of a cultivation manual without the input of Fairylake, but we will still invite them to contribute once the format has been finalised.

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 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: 20-035 Darwin Half Year Report**