



Darwin Initiative Main/Post/D+ Project Half Year Report (due 31st October 2018)

Project reference	Project 23-004 ref 3339
Project title	<i>Ex-situ</i> conservation of threatened plants from the Ivoloinalfontsy valleys, Madagascar
Country(ies)/territory(ies)	Madagascar
Lead organisation	Madagascar Fauna and Flora Group (MFG)
Partner(s)	Missouri Botanical Garden and Royal Botanic Gardens, Kew
Project leader	Karen Freeman
Report date and number (e.g., HYR3)	HYR3
Project website/blog/social media etc.	Website: http://madagascarfaunaflora.org/darwin-initiative.html ; twitter: @DI_gasyplants

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).

Output 2. Training and capacity building provided to enable six young Malagasy men/women the skills necessary to propagate and nurture native Malagasy plants

2.3. Project Leader and Manager of Conservation Horticulture organise 3-month formal training course and then the Manager of Conservation Horticulture coaches the trainees for the remainder of the project (Q1-Q12)

During Q9-Q10 the six trainee conservation horticulturalists have been coached by the experienced horticulturalist Alex Mamisoa in all aspects of propagating and nurturing native trees. All the trainees remain enthusiastic about their work, and are now knowledgeable about horticulture and skilled in the full range of horticultural operations. They are all capable of working proactively and with minimum direction. During the reporting period the dominant activities included: pricking out seedlings (3667 seedlings were pricked out into pots), nurturing the seedlings in the nursery (including watering and pest control), planting out the seedlings into the Parc, and monitoring and weeding those seedlings previously planted. During the reporting period special training was provided in vegetative propagation of woody plants.

Output 3. Vouchered and genetically diverse seed samples collected for at least 500 endemic Malagasy species from remaining native forest fragments within Ivoloinalfontsy River Valley

3.3. *Seed samples of species considered recalcitrant sent to Parc Ivoloinalfontsy for propagation (Q2-Q8)*

Although the Darwin Initiative field botanists completed their contracts at the end of the Year 2, 24 additional seed samples were received during the reporting period. These samples were collected by local people living around the forest fragment of Ampasina from plants vouchered and tagged earlier by our field botanists. Thus in total 868 seed samples have now been collected by this project representing 430 different species.

3.4. Voucher herbarium specimens processed so that replicates are both deposited at Madagascar's national herbarium and exported to international herbaria for expert identification (Q2-Q8)

Following best practice, all of the seed samples collected were accompanied by a voucher herbarium specimen that will enable scientific identification. All these specimens have now been shipped to the national herbarium at the Parc Botanique et Zoologique de Tsimbazaza and for two foreign herbaria for expert identification. Specimen labels printed by MBG in St Louis have now been received in Madagascar. These labels will be stuck to the sheets of the mounted herbarium specimens.

Output 4. At least 500 vouchered, genetically-diverse, endemic Malagasy flowering plant species conserved ex-situ

4.1. Manager of Conservation Horticulture at Parc Ivoloïna enters collection information for each seed accession into Living Plant Monitoring System and then updates history of each accession within the System throughout project and beyond (Q2-Q12)

Currently the accession information is stored in an excel spreadsheet. At the conclusion of the project this will be transferred into MBG's Living Plant Monitoring System.

4.2. Accessions Manager at the SNGF seed bank and the Millennium Seed-bank enters collection information into their respective accessions systems (Q2-Q12)

Collection information on all seed samples dispatched to SNGF have been integrated into their database.

4.3. Manager of Conservation Horticulture at Parc Ivoloïna and six nurserymen/women propagate seeds and nurture seedlings, and label all accessions with unique codes linked to LPMS (Q2-Q10)

With the addition of the 24 newly collected seed samples, 602 seed samples have now been propagated in the Parc Ivoloïna nursery. These samples include 84 different plant families, 214 different genera and 430 different species.

4.4. Manager of Conservation Horticulture identifies appropriate planting locations for the seedlings within Parc Ivoloïna and directs planting out and labelling (Q6-Q10)

During the reporting period 7590 seedlings were planted out into Parc Ivoloïna. Thus, in total, 12,355 seedlings have been planted to date.

4.5. Newly planted plants weeded until fully established (Q5-Q12)

When required newly planted seedlings were weeded. Our monitoring shows that six-month mortality of the planted seedlings is 6.15%

4.8. Organising visits of all "Saturday School" children to visit the project, coverage on radio show, MFG newsletters, website, Twitter and Facebook accounts (Q1-Q12)

During the reporting period, the nursery hosted visits by students or staff from four organisations: 11/04/18: School "Petite Bulle", Toamasina = 38 students; 12/04/18: Project QMM, Fort Dauphin = 10 staff; 19/06/18: Association Ampasina, Toamasina = 27 members; 05/07/18: Middle School Andakolosy, Toamasina = 35 students

The nursery has come to be regarded as a model nursery for the propagation of native trees and during the reporting period we were pleased to host three training workshops: 18-19/06/18: 27 members of VOI Ampasina – conception and installation of a tree nursery; 20-23/06/18: 5 members of COKETES project (GEF) – monitoring of restoration work using GIS; 28-29/10/18: 12 members of COKETES project (GEF) - installation of a nursery and nursery techniques

During the reporting period the project's website (<http://www.madagascarfaunaflora.org/darwin-initiative.html>) was improved and updated. Updates have been made to the dedicated project Twitter account "@DI_gasyplants".

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.

During the reporting period no notable problems were encountered. A minor problem was an infestation of mealy bugs in the nursery. These pests feed on the sap of plants and act as a vector for several plant diseases. Young palm plants were particularly badly infested. MFG has a policy not to use non-natural pesticides at Parc Ivoloïna and therefore we endeavoured to control this pest using plant-based deterrents (such as chilli and neem sprays) and also by manually removing these animals. However, such control methods were only partially effective and some young seedlings were weakened and occasionally killed by the mealy bugs.

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: No

Formal change request submitted: No

Received confirmation of change acceptance 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: £0

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?

None

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**