



Darwin Initiative, Darwin Plus and Illegal Wildlife Trade Challenge Fund Covid-19 Rapid Response Round - Final Report

*Due within two months of the end date of the Rapid Response Round project
(maximum 6 pages)*

Project reference	CV19RR05
If linked with an ongoing project, please include that project reference here (e.g. IWT001)	DPLUS104 Conserving St Helena's endemic invertebrates through invasive species control.
Project title	Native Plants for Biodiversity
Country/ies	St Helena island
Lead organisation	St Helena National Trust
Partner institution(s)	-
Start/end date of project	1 st January 2021 – 31 st March 2021
Which fund was this project relevant to?	Darwin Initiative / Darwin Plus / Illegal Wildlife Trade Challenge Fund
Grant value (£)	£16,360.00
Project Leader name	Mike Jervois
Report author(s) and date	Martina Peters and Mike Jervois, 27th May 2021

If your project is Darwin or Darwin Plus, please submit to Darwin-Projects@ltsi.co.uk. If your project is IWT Challenge Fund, please submit to IWT-Fund@ltsi.co.uk.

1. Project Summary

The Millennium Forest is a flagship long-term dryland habitat restoration project on St Helena that depends heavily upon various funding streams, which had been heavily reduced due to delays with grant schemes, redirection of funds towards Covid-19 responses and a reduction of tourism related income. This Darwin Covid-19 Rapid response grant has allowed the National Trust to employ workers in key posts to carry out nursery work, composting and maintenance (plant aftercare, weeding, irrigation systems, fencing etc.) at the Millennium Forest.

This project linked to an existing Darwin Plus project: DPLUS 104 Conserving St Helena's endemic invertebrates through invasive species control. Planting of endemic plant species under this grant supported and provided habitat for endemic invertebrates i.e. Gumwood leafhopper (*Sanctahelenia decellei*) and created corridors for migration of species; developing a healthy widespread population.

The Millennium Forest project was started in the 1980s but officially launched in 2000, with majority of trees planted by local St Helenians. The forest is in the location of the once 'Great Wood' that was made up of endemic and critically endangered Gumwood trees (*Commidendrum robustum*) and was destroyed by introduced invasive species i.e. goats. Strong winds and rains carried away the exposed soil leaving area terribly eroded. The area is slowly recovering with mature trees dropping leaf litter and starting to build up soils and natural regeneration is occurring in places; however, success of seedlings is heavily impacted by invasive species such as rabbits.

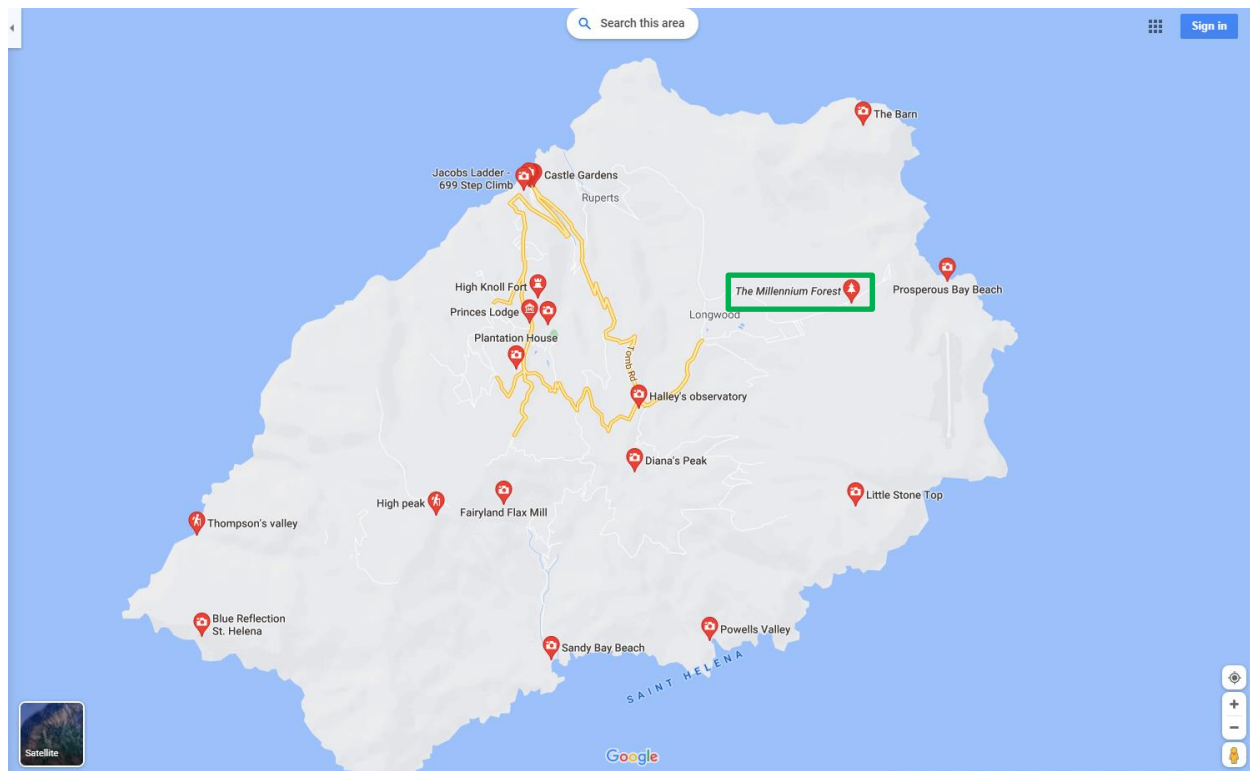


Figure 1: Google map of St Helena, showing location of the Millennium Forest

2. Project Achievements

Intended outcome of the project was to give habitat restoration at the Millennium Forest a short-term boost through intensive propagation programme to help establish native plants in-situ in the Millennium Forest nursery.

There has been much achieved under this short-term grant:

Activity 1: Establish project team

A project team was in place by 1st February 2021, this late recruitment was due to the press embargo set by Darwin which was lifted through email communication with Darwin Finance team on 5th January 2021. Posts were advertised for 2 weeks, followed by interviews. Recruitment was carried out in line with the National Trust's recruitment procedure and informed by the relevant Trust policies (equal opportunities policy and safeguarding policy). The hired staff were all male; only 1 female applied but was not shortlisted for the roles. The Trust has a female apprentice working at the Millennium Forest who assisted and worked alongside staff, the Trust overall has a ratio of 3:4 with majority of women holding senior management positions.



Figure 2: Project team and Apprentice

Activity 2: Propagation of 2,000 native plants will be initiated through seeds sown, seedlings transferred into grow bags

Good progress was made. Our original intention was to initiate the propagation of 1,000 gumwood, 300 tea plant, 300 boxwood, and 400 salad plant. The table below shows the species that were propagated from February – March 2021. Tea plant, Boxwood and Salad plant are slow germinating species.

Table 1: Seeds sown

Species sown	No. Trays	Comments
Gumwood	6 trays	Approx. 600 seeds sown – Gumwoods are usually fast germinating species however due to hot, dry weather they took longer to germinate. Additional watering needed.
Teaplant	1 tray	Approx. 100 seeds sown
Salad Plant	2 trays	Approx. 400 seeds sown
Boxwood	1 tray	Approx. 100 seeds sown

One of the problems encountered was that not all of the seeds sown germinated within the timeframe of this project, this can be attributed to a number of factors hugely likely one being that the seasonal climate for some species. This is beyond our control but majority of the species sown have germinated and are in process of being potted on.

Activity 3: Compost production will be continued which will provide compost beyond the life of the project

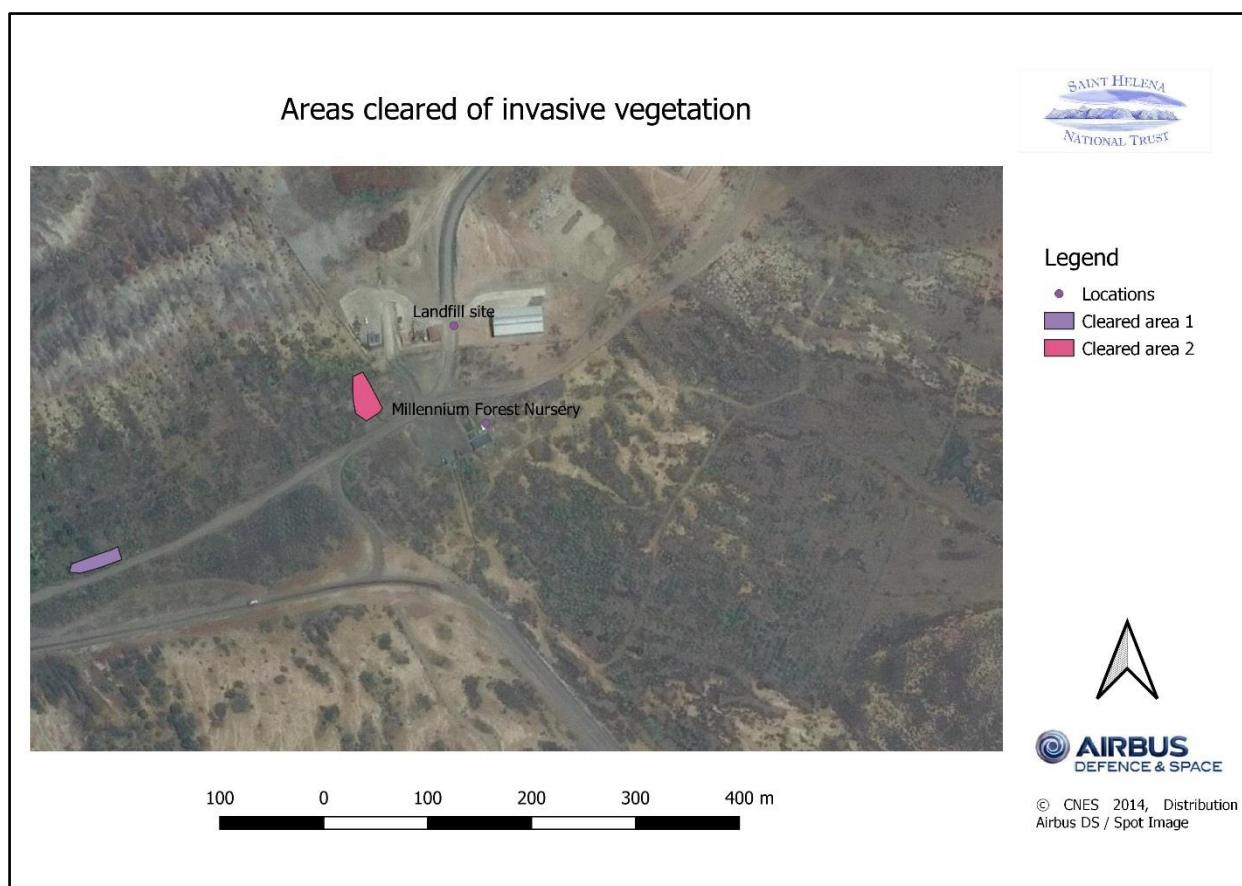
We aimed for 50 cubic metres of invasive plant vegetation will be collected over the life of the project (equivalent to 1 trailer load per week for three months). Invasive species were cleared from within the Millennium Forest and chipped providing woody carbon rich (brown) material and invasive yellow ginger lily (*Hedychium flavescens*) was cleared from High Peak – another key conservation area to provide green nitrogen-rich material. A total of 3 compost bins (5.4m³) was layered to breakdown, in addition to this some of the cleared material was chipped and

used to restore a existing footpath (Gatehouse to Platform) creating a natural, wood chipped path this accounts for approximately 24.8m³ of material some vegetation was piled on site creating habitat piles for invertebrates, used as mulch around plantings or transported off site to avoid regrowth i.e. Tunny (*Opuntia sp.*)

A problem encountered with this activity was that the trailer owned by the Trust needed maintenance and thus was not completed within the timeframe of this project. This was overcome by hiring a trailer and using a pick-up vehicle instead of the Land Rover which allowed additional space for cut material.

Activity 4: Invasive plant species will be cleared from habitat sites in preparation for native plantings

Good progress was made with invasive species clearance. We aimed to clear 500 square metres of vegetation and resulted in a total area of 896.29m² – exceeding our target by 396.28m². Invasive plant species mainly Wild mango (*Schinus terebinthifolius*), Tunny (*Opuntia sp.*) Poison peach (*Diospyros dichrophylla*) plus many invasive or non-native species was cleared within the Millennium Forest boundary.



Activity 5: Five hundred native plants that are already established in the nursery will be planted back into the wild

A total of 910 native plants (865 Gumwood and 45 Ebony) were planted into cleared sites, which is 410 additional plants to the targeted 500. These planted areas were fenced off to protect seedlings from predation by rabbits. This additional need arose due to increased damage seen on endemic Gumwood trees i.e. barking, tips bitten off and to increase the survival rates of naturally germinating seedlings. This additional work aided the survival of native plants planted under this short-term project.

Figure 3: Cleared areas at Millennium Forest

The project delivered on value for money by not purchasing any capital equipment but instead capitalising on equipment that was already present at the Millennium Forest. The project team was led by experienced senior staff (project leader and manager and Millennium Forest nursery manager) who trained the three new conservation assistant staff in perfected propagation techniques and maintenance around the Forest i.e. irrigation maintenance and repair.



Figure 4: Native plants planted into cleared area (fenced and irrigation installed)

3. Lessons learnt

The project worked well overall, there was great teamwork, communication and a sense of achievement from all project staff. In the event that this project was to be done again it would be that a longer grant is needed as the inflow of funds to this project has made a noticeable difference. Also in terms of staffing it would be desirable to have a staff member who can do recording, mapping, education and awareness i.e. lead tours, school groups etc. other things would be to improve the nursery in terms of increasing number of benches inside and out for increased plant production

Recommendations to others doing similar projects is to ensure that a good team is recruited who can work together thereby creating an inclusive, welcoming atmosphere. When we have a good project projects like this can exceed expectations.

4. Other comments and feedback

[Please use this section to provide any other comments or feedback you may have.](#)