Environmental Management Division Newsletter

February - March 2016

ST. HELENA ISLAND MAKING MARCH MARINE

OUR ISLAND, OUR ENVIRONMENT, OUR RESPONSIBILITY...

Instead of the usual Marine Awareness Week, EMD's Marine Section has been busy orchestrating an entire marine awareness month through 'Making March Marine'. For this initiative they have teamed up with the Tourism Office and Marine Science teacher Bev Tyson to bring you a full month of marine related activities to help raise awareness of St Helena's marine environment and highlight the importance of our marine life. The Island's marine environment forms a vital part of our culture and identity, supports livelihoods and the economy, contributes to our health and well-being, and supports our tourism industry. Activities have been wide-ranging and include school presentations, craft sessions, water sports, Post Box walks, a Fun Day and much more. These have all been advertised in the newspapers and on our Facebook page.

For more information please contact: **Elizabeth Clingham** on **22270** or **marine@enrd.gov.sh**

CORE WORK AREAS

- Making March Marine!
- Environmental monitoring training as part of the Darwin Plus DPLUS020 project
- Seabird ringing, tracking & nest monitoring
- Environmental assessments & planning applications
- Input/ support to Airport project
- Met Office Global Upper Atmosphere Project
- Waste Wheel
- Horse Point Landfill Site Pigeon monitoring
- Habitat restoration & maintenance
- Endemic seed collection & propagation
- Environmental Data & GIS management
- Waste Collection & Management service
- Publicity, promotion and advice on environmental issues
- Training in endemic seed collection and banking
- Horticulture training

DPLUS037: CONSERVING THE GENETIC DIVERSITY OF ST HELENA'S THREATENED ENDEMIC FLORA

A collaborative Darwin Plus-funded project between the Royal Botanic Gardens Kew and EMD is seeking to build EMD's capacity for managing ex-situ collections and improving the range of material of St Helena's endemics held in seed banks and in cultivation. Having a comprehensive base of material available for other conservation activities is critical to the long-term success of efforts to secure the future of St Helena's precious endemic flora.

The project has already seen EMD's Vanessa Thomas-Williams and Lourens Malan visit the UK in September 2015 to work with conservationists at the Millennium Seed Bank, to experience some of the techniques and equipment used there to process and bank seeds of plants, as well as have the opportunity to share skills with conservation horticulturalists at Kew.

The project also allowed for two of Kew's experts to visit the island recently in February and March to provide further training.

Tom Heller was the first to arrive and during his two week stay his primary aim was to provide additional support to EMD's Endemic Nursery team in seed collecting and banking seeds. Following leads gained through a gap analysis exercise, Tom, along with the Scotland-based nursery team, were able to visit a variety of sites across the island where previously unsampled populations of endemics were known to exist. They were able to make new seed collections of plants such as Diana's Peak grass (*Carex dianae*) from the Barn, as well as collect spores of endemic ferns for banking in liquid nitrogen, which has not been attempted with St Helenian ferns previously. The field work highlighted the challenges involved in plant conservation in St Helena, with many unsampled populations effectively inaccessible on cliff faces.

The training continued with the arrival of Tom's colleague Marcella Corcoran, who also spent two weeks on-island providing training and support in horticulture to staff of EMD, the National Trust and LEMP, to further build capacity in ex-situ plant conservation.

Marcella spent the first week providing formal classroom based training covering horticultural techniques such as nursery good practices; pests and diseases; seed sowing and germination; trial situations; endemic cuttings; fern production; and production planning. She spent her final week providing support in participants' individual nursery situations at the Endemic Nursery at Scotland; the Peaks nursery; the Millennium Forest; and the LEMP nursery in Half Tree Hollow. Marcella commented of the training: "It was brilliant to have several groups of conservation-minded teams exchanging information".

More information can be obtained from **Vanessa Thomas-Williams** on **24724** or email: **vanessa-thomas@enrd.gov.sh**

Also follow the project on: https://storify.com/KewUKOTs/conserving-the-genetic-diversity-of-st-helena-s-th

DARWIN INITIATIVE

DPLUS020: ST HELENA BASELINE ASSESSMENT: A FOUNDATION OF EFFECTIVE ENVIRONMENTAL MANAGEMENT

The aim of this Darwin Plus-funded project is to establish an island-wide environmental baseline for parameters including air, soil, water and noise. This baseline will provide the basis for a monitoring network, which is a statutory requirement under the recently enacted Environmental Protection Ordinance. The Environmental Management Division (EMD) is the lead organisation for the project and has spent the past year researching and procuring specialist equipment, consumables and accessories; and exploring and setting up different monitoring locations around the island.

The main pieces of environmental monitoring equipment and the parameters they measure:

Surface water and Groundwater

- Metalyser - tests for a selection of heavy metals in water
- Dissolved Oxygen meter - measures quantity of Dissolved Oxygen in water and temperature
- ph, TDS & EC meter - measures pH, Total Dissolved Solids and Electrical Conductivity in water
- RUGGED TROLLs - borehole data loggers, measures temperature and level of water in boreholes, as well as barometric pressure
- Diptape and Interface Probe - for measuring depth of water in boreholes
- Flow meter - measures stream velocity
- Water quality - reagents were purchased to measure a range of parameters with the help of the Public Health Lab, such as manganese and lead.

Soil/ Air

- MiniRae 3000 PID - measures total concentration in air of Volatile Organic Chemicals; e.g. this piece of equipment can be used in monitoring for petrol spills

EMD also has a noise meter

- Norsonic sound level meter - measures decibels in the surrounding environment

The Marine Section also has

- Hobo TidbiT v2 Temperature Loggers for monitoring sea temperature

We will also be procuring suitable kit to measure air quality - toxic gases and particulate matter.

AECOM, a UK-based environmental consultancy, were contracted last year to produce a Technical Field Manual for the project, incorporating all of the specialist kit procured or already owned by EMD. Part of the contract was also to provide training on use of the equipment, and a trainer from AECOM, Kath Thorp, was on island from the 6th to 21st February to carry out this requirement.

There was a core group of EMD staff who attended all training sessions, however, staff from the St Helena National Trust, Connect St Helena, the Public Health Lab and the Agriculture and Natural Resources Division also attended selected training sessions relevant to their work. There were initial classroom-based theory sessions for each of the parameters to be monitored, which covered general principles including risk assessments; health and safety, appropriate PPE; general field kit; site safety; and site and location selection. Kath also covered equipment calibration, checks and maintenance; Quality Control; downloading data; data management and storage; and basic data interpretation. She also did a small session on marine monitoring.

After the theory presentations the trainees spent time getting comfortable with setting up and using the equipment in the classroom; this was then followed by practical field-based sessions where participants were able to use the equipment in real-world situations. There were practical sessions at Frenches Gut, Ruperts, Black Bridge and at Horse Point Landfill Site. The training ended with a refresher/ summary session of everything covered over the two weeks.

The training was especially useful in allowing staff to become more confident in using the monitoring equipment, and also in the selection and setting up of monitoring sites. Kath's help was also invaluable in identifying gaps in the equipment and locations selected. EMD will now employ the training to establish a monitoring network which will initially conduct baseline surveys of St Helena's environmental quality; this data will be vital in assessing any future changes in the environment.

DARWIN INITIATIVE

For more information about this project please contact **Isabel Peters** on **24724** or email **isabel-peters@enrd.gov.sh**

Measuring stream velocity

Measuring depth to water in borehole

Measuring pH, TDS and EC in water samples

ENVIRONMENTAL PROTECTION ORDINANCE, 2016

Following the passing of the Environmental Protection Ordinance (EPO) during the November sitting of Formal Legislative Council; the EPO was brought into force on 29th February 2016. The EPO is St Helena's first piece of comprehensive environmental legislation and makes provision for the protection of the environment, including the conservation of biodiversity, the regulation of trade in endangered species and the control of pollution, hazardous substances, litter and waste. The EPO now provides the statutory basis for the Environmental Management Division's role and operations. Over the coming months we will be assessing what parts of the EPO we are ready to implement and where subsequent regulations, polices and guidelines will need to be developed. As we progress, updates and a programme of public awareness will be provided via local media.

Enquiries on the EPO should in the first instance be directed to **Isabel Peters**, on **24724 or 22270** or email **isabel-peters@enrd.gov.sh**

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EMD
"Our Island. Our Environment. Our Responsibility."