



The Humpback Whales have arrived at Aldabra!



The tail fluke of one of the Humpback Whales arriving at Aldabra © A Burt

One of the most anticipated arrivals on Aldabra Atoll each year is during the southeast monsoon when Humpback Whales (*Megaptera novaeangliae*) migrate past the atoll. This year has not been a disappointment, with the first whale seen on 14th July.

Whale watching has become a much-loved pastime for the staff on Aldabra and one of their favourite activities. Each year around June/July the staff stare eagerly out to sea hoping to glimpse a whale spouting, breaching or tail flapping near the reef, perhaps even with a calf. In 2013 the first whale was spotted on 29th June, but this year that day came and went with no whales seen. The staff didn't give up their vigil and on 14th July Ranger Stephanie Marie saw some splashing whilst looking across the reef from the research station. After a moment she realised that she was seeing the exhale of one of the much anticipated ocean giants. She put out a radio call across the station and all staff stopped what they were doing to rush to the beach. They then saw the animal slowly surfacing and once its dorsal fin appeared it was confirmed as a Humpback Whale. Since then the staff have spent as much time as possible whale watching and their patience has been rewarded by several sightings of plumes of spray, tail slaps, fin slaps by whales and even the occasional breaching whale further offshore.



The whale watching team keeping vigil for any sightings © SIF

Humpback Whales migrate into warmer tropical waters during these months to feed and calve before returning to the Southern Ocean. SIF collects location, behavioural data and identification photographs of any individuals seen when possible, which are shared within a regional network allowing researchers to gather data on the movements of these ocean wanderers.



Work continues on the removal of introduced plants from the Vallée de Mai



Vicky Barbe, one of the Praslin IAS team, drilling a bwa ber tree © SIF

Work towards the removal and management of invasive plants is still ongoing in the Vallée de Mai. This month the Praslin invasive species team has been busy starting the control of bwa ber (*Juglans cinerea*), coco plum (*Chrysoalanus icaco*) and rubber tree (*Hevea brasiliensis*).

The team used two methods to treat the 24 bwa ber trees to establish which method is most effective for controlling this species. The treatment of the coco plum was more difficult but the team had the valuable assistance of the Vallée de Mai fieldworkers, and have treated 15 coco plum trees so far, with many more still to be treated. Eight rubber trees were also treated by carefully applying herbicide to a drilled hole in the trunk.

Another invasive species that the team is continuing to work on is vya tang (*Dieffenbachia seguine*), which has been almost removed from the Vallée de Mai. The team have been uprooting the plants and laying them on elevated racks to dry. This prevents the plant from resprouting and the dried material can eventually be returned to the forest floor. Any resprouting plants that are seen in the controlled areas around the river banks are being closely monitored and removed when necessary.



The native palm leaf litter at the stewardship plot © SIF

Trees and saplings of the previously treated eight species (see earlier newsletters) are also checked every two months by the team to monitor the effectiveness of the treatment. The checks include the survival, health state, defoliation and also any defensive responses shown by the trees. The team has found so far that cinnamon has been the most resistant to the control methods and bwa zonn the most receptive.

The team have also applied lessons learned from a previous



President of Palau visits the Vallée de Mai



The President of Palau (on left) on his guided tour with Dr Fleischer-Dogley in the Vallée de Mai © SIF

The Vallée de Mai had the privilege of welcoming yet another VIP guest when the President of Palau Tommy Remengesau visited this World Heritage Site as part of his three-day visit to Seychelles.



The President signing the visitors book at the Vallée de Mai © SIF

President Remengesau was accompanied by SIF Chairman Ambassador Maurice Loustau-Lalanne and CEO Dr Fleischer-Dogley, as well as the Minister and Principal Secretary of Environment, Energy and Climate Change. The delegation took a leisurely walk in the forest and the President was delighted to see the de-husking of the infamous Coco de Mer and said he was very impressed with the conservation efforts on Praslin and at the Vallée de Mai. Before his departure Dr Fleischer-Dogley presented the President with a copy of her book on Coco de Mer as a token of his visit to the Vallée de Mai. The Chairman of SIF, Ambassador Loustau-Lalanne also presented the President with the quintessential symbol of Seychelles, a precious Coco de Mer nut, which the President was delighted to receive.

Snorkelling trip for Friends of Vallée de Mai club members

Aldabra staff complete online Environmental Science course



The renewable energy system on Aldabra, renewable energies were one of the topics on the course © SIF

Several of the Aldabra research team have recently passed and completed an online course in environmental science, run by Dartmouth College in the United States as part of edX (a website that hosts free online courses from the world's best universities).

The course was extremely helpful in developing the knowledge of the staff in regards to the natural world and its modification by human activity. The course material helped to broaden the knowledge and understanding of Aldabra staff and put Aldabra into context as an important area to protect and conserve in such an ever-changing and developing world.

The course modules included topics such as human population, food and soils, non-renewable energy, renewable energy and global change. There were weekly quizzes and discussions on each topic, and participants were encouraged to relate what they had learned to the place where they were working. The staff particularly found the renewable energy topic interesting as they were able to discuss the renewable energy system on Aldabra, as well as learn more about the global importance of this topic.

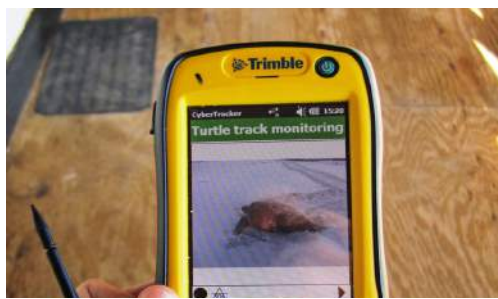
Cybertracker facilitates research on Aldabra



A ranger on Aldabra undertaking turtle track monitoring using Cybertracker © A Burt

Cybertracker is a field data collection program, initially designed to engage the Kalahari bush men, who are expert trackers, in recording data whilst tracking bringing their expert skills into the 21st century. The program enabled the bushmen to gain work as rangers, carrying out wildlife monitoring, research and ecotourism activities. Many of the trackers could not read or write so an icon based interface was developed allowing the expert trackers to record complex geo-referenced observation on animal behaviour by just tapping a screen.

The Cybertracker program has since been developed further and is now used globally in species monitoring, from whales in the Arctic to turtles in the tropics. Its straightforward application, design process and variety of interface tools means it can be adapted for many types of data capture. The application is loaded onto any handheld digital device such as a smartphone or the specifically designed touch-screen 'Trimbles'. Data is then downloaded from the device straight into a database, meaning that there is no additional data entry, transcription errors or time wasted.



The team have also applied lessons learned from a previous experiment in their work this month by using the results of the leaf litter experiment conducted last year. Initial results from this experiment suggest that palm leaf litter limits the growth of invasive plants while benefiting the growth of natives. Palm leaf litter is now being used at the stewardship scheme plot where a large area of invasive plants has been removed and endemic and native plants planted in their place. Early indications from this area are that the leaves are preventing the regrowth of invasive plants and allowing the new seedlings to grow, which is promising for a broader application of this method.

Presentation given at closing of GEF Protected Areas Project



The incredible outer reef of Aldabra, a protected area © SIF

At the closing ceremony of two of Seychelles biggest GEF-funded projects, SIF CEO Dr Frauke Fleischer-Dogley gave a presentation on SIF's work under the protected area project at Aldabra.

The GEF funded project 'Strengthening Seychelles' Protected Area System through NGO Management Modalities' came to a close this month after four years. The project aimed to assist in the establishment of new protected areas, and also to improve the management of existing terrestrial and marine protected areas. Several NGOs, parastatal organisations and private sector companies received funding from GEF to achieve these objectives. Under the project, SIF focussed on Aldabra Atoll and aimed to: 1) increase the extent of the Marine Protected Area; 2) improve surveillance of Aldabra; 3) develop a more sustainable financing mechanism for the atoll; and 4) develop thresholds and bio-indicators as benchmarks in the management of Aldabra's ecosystems. The achievements made with respect to these objectives were presented by Dr Dogley at the ceremony. The outer reef habitat map that was created under this project has confirmed the need to extend Aldabra's marine protected area, as 3.5 km² (the equivalent of 490 football fields) of outer reef were not protected by the existing 1 km Special Reserve boundary around the atoll. A very positive outcome is that the proposal to extend this marine protected area has recently been approved by government and will come into force next year. The project also allowed for the development of a programme to monitor the diversity and abundance of the marine species at Aldabra. This programme will provide a better understanding of this relatively intact marine ecosystem, and how coral reefs change in response to human or natural impacts.

Dr Frauke Fleischer-Dogley has described this project as a huge achievement because "although we already had maps of Aldabra's location and lagoon habitats, we had very little information on the outer reef structure and no understanding of the extent of different habitat types. The outer reef map and monitoring programme produced under this project have made it possible for SIF to now monitor the incredibly rich marine life of Aldabra."

Statistical analysis training for SIF staff



The participants of the statistical analysis course © SIF

This month four members of SIF staff from the Vallée de Mai and Head Office (Wilna Accouche, Terrence Payet, Mariette Dine and Vicky Barbé), attended a four day course at the University of Seychelles on statistical analysis.

The course aimed to teach the basics of descriptive statistics and the use of the statistical software program R. The course was challenging as the staff had to learn a new topic and the related



The group of snorkellers © SIF

As a belated celebration for World Oceans Day on 8th June, six members of the Friends of Vallée de Mai club from Praslin secondary school and two Vallée de Mai staff members went for a snorkelling trip to St Pierre, a small island close to Cote d'Or beach on Praslin and an excellent snorkelling spot.



On their snorkel at St Pierre Island © SIF

The students had a great time during their snorkel and were able to discover the wide variety of marine life that is found there. The children recounted the highlights of the snorkel as seeing an eagle ray, brightly coloured parrotfish, sea cucumbers and sea urchins. For many of them it was their first time snorkelling, especially somewhere with such a wealth of marine life. This snorkelling trip was kindly sponsored Octopus Diving Centre on Praslin and we are grateful for their continuing support of our education programme. Through immersion visits such as this we hope that the students will foster a love for the marine environment and seek to protect it in the future.

Fire prevention training



One of the Vallée de Mai staff members learning how to tackle a fire © SIF

Fire remains one of the greatest threats to the Vallée de Mai and this month several members of staff participated in a fire prevention training course with the Seychelles Fire and Rescue Services Agency.

The Vallée de Mai is at the heart of Praslin Island and contains the Seychelles' largest intact forest of the endemic Coco de Mer palm. One of the major threats to this unique ecosystem is forest fire, which could obliterate large areas of the forest very rapidly. This threat is exacerbated during the dry season (May-September) when the forest is dry and fires can progress quickly. With the recent opening of a permanent fire station on Praslin this was the ideal time to further the training of the staff in fire prevention methods.





One of the Trimble devices with the Cybertracker application for turtle track monitoring on Aldabra installed © A Burt

Cybertracker applications have now been designed for two of Aldabra's long-term monitoring programmes; turtle track counts and subsistence fishing. The Trimble devices that the applications are loaded onto are robust and can be used in the field, collecting *in-situ* data on the location of turtle tracks or where each individual fish is caught. These data along, with all other information recorded, are then easily downloaded and ready for analysis. This has greatly improved the data collection process for the research team at Aldabra and has saved many hours of manual data entry.

There is great scope for further utilising Cybertracker in Aldabra research given the wide variety of monthly monitoring programmes. As well as monitoring turtles SIF also collect data on coconut crabs, tortoises, landbirds, climate, vegetation phenology, seabirds, dugongs, marine mammals and other projects which are carried out by the Aldabra team. The use of Cybertracker for data collection is relatively new in Seychelles and SIF is one of the first organisations to replace old data collection methods with this new, modern data capture technique. We hope that SIF will be in a position to support other organisations keen to make the transition to this new technique.

commands for that process in R every day. Through a combination of presentations and hands-on exercises the participants learned many aspects of statistics and their understanding was reinforced by taking a short test every day. On the last day of the course the participants were tested and given a list of instructions to perform in R without any assistance, to ensure that they had understood the course content and to obtain a certificate of completion. The material and skills that were learned during the course will be very useful to the SIF staff members in their data analysis and in any further studies that they undertake in the future.

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The staff being instructed by Mr Madeleine © SIF

Accompanied by the CEO, Dr Frauke Fleischer-Dogley, 20 members of the Vallée de Mai team attended a one day course with Mr Jones Madeleine from the Seychelles Fire and Rescue Services Agency. The best way to protect the Vallée de Mai from forest fires is to prevent them from breaking out in the first place. The staff were given some presentations on the basics of fire prevention and enforcement of the no smoking policy at the Vallée de Mai was highlighted as one of the areas to focus on. If a fire does start then the staff need to be able to respond quickly and effectively, and they had the opportunity to learn the techniques needed to extinguish fires swiftly and safely.

We plan to follow up in the future with further training for our staff and partners in tackling forest fires in the hopes to reduce this threat, which has proven in the past to be detrimental to areas of forest elsewhere on Praslin.