

# Key Aldabra supply operation a big success

The Aldabra community was very excited to receive the landing craft Spirit of Ton Joe which delivered much needed food and other supplies for the coming seven months. This was one of the largest supply deliveries Aldabra has ever had. For the first time SIF collaborated with United Concrete Products Seychelles (UCPS) in a supply delivery, hiring the vessel directly from them.



Unloading continued into the night © SIF

It was a challenging event for both the Mahé and Aldabra teams. The Mahé team had to purchase, load and check the large quality of supplies, and the unloading team on Aldabra had to transport everything from the Spirit of Ton Joe to the correct place at the station. Besides food supplies the vessel contained important construction materials needed to finish the biosecurity building on Aldabra, maintenance supplies, various important spare parts and fuel to operate the boats. All items were successfully transported and unloaded from the beached landing craft. Beaching on Aldabra is always a rare and challenging event, and everybody was extremely pleased with the successful completion of this mission.



Unloading of the supply boat successfully completed © SIF

The received construction materials will be used for the biosecurity building; funded by the Indian Ocean Commission, the biosecurity building will assist with the prevention of the accidental introduction of invasive alien species to this World Heritage Site. It was a great experience chartering the Spirit of Ton Joe, and was only possible with the project funding and because UCPS offered SIF a subsidised rate, for which we are extremely grateful. The crew was also extremely helpful and fully supported the unloading operation on Aldabra, making a huge difference to the operation. This successful supply operation was only possible with excellent team work proving that *Together* Everyone Achieves More.

# SIF CEO presents coco de mer at the Natural History Museum

On Saturday 24th March SIF CEO Dr Frauke Fleischer-Dogley, together with Brina Zialor, gave a presentation on the coco de mer as part of an educational session hosted by the Natural History Museum's educational programme. This was the first educational session hosted by the museum following the launch of the programme in February.



Dr Fleischer-Dogley delivering her presentation © SIF

The session was attended by members of the Museum Club, senior citizens, students from the University of Seychelles, WildLife club members, and facilitators from the Seychelles National Youth Council. The presentation included the occurrence, life-cycle and biology of the coco de mer, including both historical knowledge and new research. She also introduced coco de mer management strategies and challenges such as poaching.



Discussion following the presentations © SIF

With the coco de mer being an iconic symbol of Seychelles, and a flagship species of the Vallée de Mai, Dr Fleischer-Dogley was delighted to be able to take part in an event celebrating the species, particularly among such a mixed audience. After the presentation the participants enjoyed an open discussion allowing them to ask questions and exchange knowledge. Thank you to the Natural History Museum for involving SIF in this excellent initiative.

## **SIF Vacancies**

We have several vacancies at the head office on Mahé, in the Vallée de Mai and at Aldabra which need to be filled urgently, check out our website at <u>http://www.sif.sc/jobs</u> or contact HR on 432 17 35 if you are interested in any of the following positions:

Mahé:

- Project Officer
- Project & Science Coordinator

Vallée de Mai:

- Visitor Attendant
- Property Maintenance Supervisor
- Field Worker
- Housekeeper
- Sales Clerk



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# uallée de mai

# Seychelles black parrot census underway



Searching for Seychelles black parrots © SIF

The last population estimate for the Seychelles black parrot was carried out in 2010-2011. At the time it was estimated that a population of 520-900 individuals occurred on Praslin, and it was recommended that the census be repeated every 5-10 years. A repeat census became particularly important given the recent increase of invasive species such as yellow crazy ants in the Vallée de Mai, yellow crazy ants and black and brown rats both impact the breeding success of the black parrot. Therefore SIF began a survey of black parrots on the 12th March, with the aim of assessing both their status and establishing a baseline before the implementation of invasive species control. It is hoped that despite the threat of invasive species the population is stable.



Survey points © SIF

The survey points are located on transects all over the islands of Praslin and Curieuse. To ensure sufficient coverage of the area, the transects are located 500m apart, with survey points situated every 300m. By the end of March, the SIF team had already managed to access 53 survey points out of a total of 268, of which 248 are on Praslin and 20 on Curieuse. The biggest challenge faced by the team so far has been invasive coco plum; the dense bushes can make it very difficult to access the survey points. Due to the random selection of these survey points some are located on private property. SIF has



Dense foliage makes it difficult to access points © SIF

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featured on the news and released an advert to inform residents of Praslin of the survey and to facilitate access to private property. We would like to thank all land owners that have already offered assistance. It's too early to come to any conclusions about the population size, but stay tuned to future newsletters for the full results!

# Vallée de Mai staff attend cost benefit analysis workshop

During March staff at the Vallée de Mai took part in a cost-benefit analysis workshop run by Dr Pike Brown from Landcare Research in New Zealand and Dr Emilia Tjernström from the University of Wisconsin in the United States. This workshop was part of the wider Inva'Ziles project and will also be provided to projects in the Comores.



Workshop participants © SIF

This workshop introduced staff to a new piece of software – EPEST - which allows researchers to compare the economic benefits of different methods of invasive species control, determining which provides most cost-effective solution over a long period of time. Such work is vital in ensuring that invasive species control work, such as rat control, can continue and will protect native species like Seychelles black parrots in the best way possible. The workshop took place over three days and was greatly appreciated by all attending.

During the workshop, staff were able to learn how to use EPEST with the help of actual data from work being carried out in the Vallée de Mai on rat control. This meant they could compare the economic value and costs of work undertaken by the Inva'Ziles project using livetraps, the potential use of the self-resetting 'GoodNature' traps, and mammal specific poison baits. It became clear that not everything was as obvious as anticipated! There are a large number of costs (and benefits) to each method, and it certainly made Vallée de Mai staff think in a lot more detail about the work currently being done by the Inva'Ziles project.

Discussions that emerged from this workshop highlighted the potential for research to take place that uses such economic and ecological data. It is possible that SIF may collaborate with institutions, including the University of Wisconsin, to create a more detailed analysis on some of the data from the Inva'Ziles and other SIF projects.

## Friends of Vallée de Mai visit La Digue



Students explore the Veuve Reserve © SIF

The Friends of Vallée de Mai club has grown steadily over the years, with the children in the club involved in a variety of activities at their schools and on the weekends. On Saturday the 24th March the Friends of Vallée de Mai members enjoyed an environmentally focused trip to La Digue. They explored the beautiful Veuve Reserve to learn more about the protection of





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plant species and their importance as wildlife habitats. There they observed the breeding and feeding habitat of a rare endemic bird species, the Seychelles paradise flycatcher. The children loved the reserve and spent the visit counting how many flycatchers they were able to spot. After this Veuve Reserve the group spent the afternoon on the beach at Anse Reunion



Cooling off after the reserve © SIF

# International School Seychelles visits the Vallée de Mai

For the past four years the International School Seychelles have visited the Vallée de Mai, and this year we hosted a group of 55 students from the school. Upon arrival they were welcomed and briefed on the day's activities and then divided into two groups to participate in activities organised for them. The activities included a presentation in the education room where they learnt about the history, flora and fauna of the reserve, bird watching at Glacis Noire, and a guided tour of the Vallée de Mai.



Presentation in the education room © SIF

In the afternoon Inva'Ziles project coordinator gave a presentation on invasive species and the work the team is doing to control invasive species in the reserve, following which the children helped to remove invasive plant species in selected areas in the Vallée de Mai. Knowing the threats to native and endemic species that are caused by invasive species, the group were very determined during the eradication activity.



International School students © SIF

Since last years' group participated in a planting activity at the Stewardship Plot, the teacher was interested in seeing how their plants were progressing. Upon arrival at the Stewardship Plot the teachers and students noticed that some creepers had taken over some of the native plants and they immediately went to work removing them. The sense of attachment they have to the Stewardship Plot was very apparent, and it was a heart-warming moment to see the scheme doing exactly what it was designed to do! After a productive day at Vallée de Mai the group left very satisfied, already excited to come back again next year.



Visiting the Stewardship Plot © SIF

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## Eco-Schools winners visit Aldabra

The Aldabra team recently had the great pleasure of hosting a group of 12 students and four teachers from Mahè and Praslin who were the top performers of the 2017 Seychelles Eco-Schools programme. The winning schools in the primary and secondary categories respectively were Anse Royale primary school, Baie Lazare primary school, and Anse Etoile primary school, and Beau Vallon secondary school, English River secondary school and Plaisance secondary school. Also on the trip were a teacher and student from Friends of Vallée de Mai clubs on Praslin.



The group with collected marine debris © SIF

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For the group the excitement began during the journey to Aldabra as they learned first-hand the remoteness of the outer islands. Once on the atoll the schedule was packed. The Eco-Schools group participated in routine station activities such as giant tortoise and sea turtle monitoring, invasive plant control and beach cleaning while also learning the background to these tasks and their value. Aldabra staff thoroughly enjoyed the opportunity to showcase the natural values of the atoll, especially to the students, who will hopefully be the next generation of conservation leaders. Students and teachers were given guided tours around some significant sites of the atoll with each tour focusing on a particular feature such as seabirds, landbirds, mangroves or lagoon habitat. A particular highlight was the overnight trip, where they were able to see a remote part of Aldabra at night.



Painting the water tank © SIF

In addition to lessons and monitoring, Aldabra staff and the Eco-Schools group took the opportunity to have some fun with conservation in mind. The students developed their water skills with snorkelling and swimming coaching by Aldabra staff, and together students and staff showcased their creativity building sculptures from marine debris and painting a variety of ocean life on a concrete water tank. These exercises have left a permanent and happy mark on Aldabra in the form of a vibrant marine scene and a large, colourful octopus and turtle made from flip flops, plastic bottles and rope.



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Eco-Schools group and Aldabra staff © SIF

The 2018 Eco-Schools trip to Aldabra was once again a hugely rewarding experience for the selected teachers and students, who had a unique encounter with one of the most remote and least accessible parts of their country, and, as usual, was also a highlight for Aldabra staff who loved interacting with the children.

# Aldabra reef monitoring season five: results are in...



Aldabra marine monitoring © SIF

As reported in the December 2017 newsletter, the fifth season of Aldabra reef monitoring was completed at 12 permanent sites located all around the atoll at the end of last year, the initial analysis of the monitoring has now been completed. Preliminary analysis shows a general increase in coral cover on the reefs compared to the previous season. However, an overall decline in fish abundance has been recorded on most surveyed sites. Season five marks the second monitoring season carried out after the devastating global coral bleaching event which was experienced on Aldabra between December 2015 and April 2016.



Benthic photo-quadrat © SIF

To monitor the benthic coverage, staff conduct benthic photo-quadrat surveys. A total of 2516 benthic photographs were collected along 63 transects. An overall 16.71% increase of hard coral cover was recorded compared to season four, with larger coral cover increases observed on the deep transects at 15m. Although their cover remains low, soft coral and malcroalgae cover was also seen to increase compared to the previous season. Turf algae on the other hand, dropped to pre-bleaching levels with a decrease of 29% since season four.

Monitoring of the fish community is done by conducting belt transects. A total of 7546 fish were recorded on 59 transects. This represents an overall decrease of fish abundance of 38% compared to the previous season. Shallow sites at 5m recorded the biggest decline in fish numbers compared to deep sites at 15m. Herbivorous fish, comprised mostly of





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surgeonfish and parrotfish, comprised 37% of all fish encountered. However, herbivores were also the fish group that declined the most compared to season four.



Transect underway © SIF

During the mass bleaching event in 2016, 51% of hard coral were lost from Aldabra's reefs and replaced by rubble and turf algae. Loss of coral cover is usually followed by a reduction in fish numbers and sizes, a trajectory observed through the season five results. Fortunately, the general increase in hard coral cover shows the reefs are recovering. The limited direct anthropogenic threats to Aldabra elevate the global importance of conducting monitoring at the site which serves as a biological reference point to monitor change induced by global environmental pressures.

### Aldabra gets a new water tower



The old collapsed tower © SIF

The construction of a new water tower on Aldabra has been successfully completed. After more than a year of planning and building, the new structure is fully functional. The construction of the new water tower comes after the collapse of the old one late last year. The project was led by Senior Mechanic Alain Banane, Aldabra's longest serving resident, with the support of the Island Manager.



Base construction © SIF

In August 2017 Aldabra's old water tower collapsed after being in existence for the last 15 years. Over time the metal structure had corroded and the tower collapsed under the weight of two 2 800L water tanks, one filled with salt water and the other with fresh water. Luckily, the logistics team had noticed the corrosion and had been preparing for the construction of a new water tower. The first two bases and pillars of the new water tower were started in November 2016 with assistance of the crew from the vessel Entreprise II. This first phase took a total of four days. The other two bases were constructed in May 2017 during a second phase and required a tremendous effort from members of both the logistics and research teams.

After the collapse of the old tower, the work became a high priority for the atoll. This final phase involved a lot of planning and design work. Alain spent over three months working on

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the welding of the metal structure which is now made up of galvanised steel. Several constraints were encountered such as a lack of materials and difficulties with the welding. However, the team pushed through and managed to hoist the heavy steel bars up to 20 metres high! The structure was finally completed in February 2018. Two 1000L tanks were installed and the new tower is now fully functional, providing water to all staff houses and buildings on the research station. Only the railing remains to be installed and this will be completed soon.



Alain hard at work © SIF

This project represents one of the biggest achievements for the logistics team as it was conducted almost entirely in-house without external contractors and without the use of heavy machinery. The work involved extensive planning, great team work and determination. With the improved and reinforced structure, project leader Alain is confident that the new tower will last almost a lifetime!



The new water tower © SIF

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