



Eradication success - Aldabra reclaims title as largest tropical island free of introduced birds!



Eradication team in 2014, nearing the end of the eradication efforts © SIF

Hot on the heels of January's announcement of the successful eradication of introduced red-whiskered bulbuls and Madagascar fodies from the island of Assumption, SIF is delighted to follow this up with news of more invasive species success, this time from Aldabra. After a final monitoring trip the Aldabra team have confirmed that there are no Madagascar fodies in the formerly invaded region of the atoll, so Aldabra can once again be considered entirely free of invasive birds!

Aldabra held this status until 2012, when both Madagascar fodies and red-whiskered bulbuls were discovered in a little-visited region of the atoll, Takamaka, during monitoring to confirm the goat eradication. The conclusion of one invasive species eradication therefore led immediately into an emergency race against time to remove the introduced bird species before they became too numerous and widespread for eradication to be feasible.

The most severe threat of the new introductions was to Aldabra's endemic landbirds. Aldabra has its own endemic species of fody, and a subspecies of Madagascar bulbul; both faced risks from the new arrivals, including hybridisation, pathogen transmission and competition for food.

Fortunately, emergency funding was sought and secured from UNESCO very quickly, a new field station was set up at Takamaka, and over the next 3 years, intensive eradication efforts were carried out with a team of 4–6 people. The red-whiskered bulbul 'population' was found to be only a single individual, which was culled in 2013.



Takamaka field hut © Lotte Reiter

Madagascar fodies, however, were well-established and took three seasons of dedicated work to remove. The eradication work was particularly tricky because Madagascar and Aldabra fodies are very difficult to distinguish outside the breeding season; even during the breeding season it can be a challenge to identify non-breeding individuals correctly from afar. Most of the eradication was therefore done seasonally, from November to April each year, using mist-nets, so the team could confidently distinguish the invasive fodies from the endemic Aldabra species. Luckily, the invasive fodies

had not spread beyond the Takamaka region so all eradication work could be done from the new field station. The last known individual was culled in January 2015.



Terence Mahoune with the red-whiskered bulbul caught in July 2013 © SIF

Since then, the Aldabra team has carried out two monitoring trips per breeding season to survey the whole area and carry out extensive observations. Not one of the four trips has detected a fody other than the endemic Aldabra species and, with this last visit to the area in March, more than two years after the last Madagascar fody was shot, we are now confident that the eradication was a success.



Adult female fodies; the Aldabra fody is the larger more yellow one on the right, the Madagascar fody on the left is smaller with less yellow © SIF

More than 200 Madagascar fodies were culled in this eradication. We encountered quite different challenges compared to the other bird eradication projects SIF has implemented, which could

easily have threatened chances of success, but we were lucky to be able to act quickly and complete the eradication in a relatively short time with a dedicated team (several of whom had first been trained on the Assumption bird eradication). The project also benefitted from being combined with research from the outset. Samples collected during the first season of work confirmed our concerns that Madagascar fodies were hybridising with Aldabra fodies. The research also confirmed that the Madagascar fodies on Aldabra came from the Assumption population and that their presence on Aldabra pre-dated the eradication efforts on Assumption. All of this information was critical to guide management decisions for subsequent seasons.



The team from the final monitoring trip © Adam Mitchell

We are very grateful to our main funder, UNESCO, for responding so quickly to our emergency request and providing the initial essential support to get this eradication started. Most importantly, our thanks go to the many dedicated and competent members of the team, staff and volunteers, local and international, for braving the baking heat and treacherous terrain in probably the most logistically frustrating part of Aldabra, from setting up the field station, conducting intensive eradication efforts, through to the final monitoring efforts. This is another significant invasive species achievement, and you all played a crucial role in protecting Aldabra and ensuring it is once again the world's largest tropical island with no introduced birds.

SIF AGM takes place on Aldabra



SIF Board members © SIF

Every second year the Annual General Meeting (AGM) of the SIF board of trustees is organised on Aldabra. Over the years this has allowed the trustees to deepen their understanding of the challenges and opportunities of managing one of the most remote UNESCO World Heritage sites in the world and ensured that informed decisions are made. The 37th AGM took place from 24th to 28th March on Aldabra. For four of the newly appointed board members this was their first trip and it has broadened their understanding of the complexities of managing such a site.

The meeting's agenda included the third concept of the Aldabra house project which was presented by the architects. The ensuing decision by the board members was that the exhibition, which is to bring Aldabra to Mahé, needs to be the centrepiece of the project, around which everything else is to evolve, including the commercial activities. The business plan was also assessed to ensure that additional funds can be raised to support Aldabra.



Exploring the atoll © SIF

Other meeting topics included the recently reviewed subsistence fishing protocol for Aldabra, which, for the first time, is ensuring that fishing activities are spatially restricted, in addition to the existing fishing ban in Aldabra's lagoon. Biosecurity was also a key topic since invasive alien species pose a major threat to this unique ecosystem. For the Vallée de Mai, the threat of increasing yellow crazy ants was discussed, which the board declared an emergency situation and requested immediate action.

At the closure of the meeting the Aldabra Management Plan 2016–2026 was handed over to the Aldabra management team. The Chief Executive Officer, Dr Frauke Fleischer-Dogley, said "I'm very satisfied with the stimulating discussions that took place and the direction given by the board for 2017/2018." After the official part of the meeting a trip to one of Aldabra's field camps Dune Jean-Louis was organised where the board members engaged in a beach cleaning exercise that stimulated a lot of ideas to mount a marine pollution prevention campaign in the not too distant future.



Beach clean-up at Dune Jean-Louis © SIF

Vallée de Mai souvenir shop supervisor wins trip to Aldabra!

Elna Stravens, the Vallée de Mai souvenir shop supervisor was selected as the best performing member of staff at the Vallée de Mai last year

and was awarded a trip to Aldabra as her reward. Elna was shocked when she was announced as the staff member chosen to go on the trip and was very happy to have been selected. She had dreamed of visiting Aldabra one day, but never really thought she would get there.



Elna Stravens at Aldabra © SIF

After her trip to the atoll Elna said that Aldabra is beautiful and that it was amazing to see the colony of frigatebirds, and the lemon sharks and rays swimming close to the beach. She also enjoyed the food and the company of the Aldabra staff and the SIF board members who were visiting at the same time.

Elna expressed her gratitude for being awarded the trip and for the welcome she received from the staff on the atoll. She also thanked the Vallée de Mai staff for their cooperation throughout the year; she believes that their teamwork helped her with discharging her responsibilities smoothly. Of Aldabra Elna said “it’s an exceptional place that words cannot describe!”

SIF projects and science coordinator graduates from the University of Zurich

Annabelle Constance, SIF’s newly appointed projects and science coordinator, recently

graduated from the University of Zurich with an MSc in Environmental Science. Annabelle graduated with an excellent grade and attributed this to her great determination, consistency, hard work and an overwhelming amount of support received from the university, SIF, family and friends. Annabelle believes that there is no substitute for hard work and that the youth of Seychelles should grasp the opportunities available to them to pursue their dreams and develop their careers!



Annabelle Constance at her graduation © SIF

Head office staff take aim at the plastic bag

At SIF, we say no the usage of plastic bags!

In order to reduce our environmental impact and to support the government policy on phasing out plastics in Seychelles, SIF head office have established a norm at the office; anyone who uses a plastic bag must pay a fine that goes towards the social committee funds.

It has been just one and half months since the fine was introduced and already the change has been remarkable; you rarely come across an SIF staff member using a plastic bag at the office. Not a good thing for the social committee funding, but good news for staff commitment to

the environment! Staff have been very creative in the move away from plastics bags, using woven and canvas bags and even our traditional 'sak vakwa'. Sak vakwa is a bag woven with vakwa (pandanus) leaves and was seldom seen in recent years, but now seems to be making a comeback; especially for shopping and for transporting lunch.

It's all well and good to aim to phase out the use of plastic bags, however without alternative ideas and biodegradable substitutes these efforts are not likely to be to succeed. To this end SIF is leading by example and for some time we have been using eco-friendly paper bags for customers shopping in the Vallée de Mai souvenir shop. These bags have recently been redesigned and feature the world's biggest seed, the coco de mer nut. These redesigned biodegradable paper bags are available in four different sizes from S to XL.



Laurette Bareau showing off the SIF paper bags © SIF



First SIF mist-netting and bird ringing training course held in the Vallée de Mai

During March, SIF held its first ever mist-netting and bird ringing training course. In addition to being a first for SIF, courses providing training such as this are rare in the Seychelles so it was a very exciting opportunity for all the participants.



Jennifer Appoo learning how to set up a mist net and Ella Nancy with a Seychelles blue pigeon © SIF

As spaces were limited, a mixture of SIF staff and students at the University of Seychelles were handpicked to attend the course which was led by Jerry Lewis and Ron Clevely. Jerry and Ron are both British Trust for Ornithology bird ringing trainers from the UK with over 70 years of experience between them.

During the course participants learnt the practical



Participants of the first week of the course © SIF

aspects of mist-netting, such as set up of net and safe removal of birds from nets, safe handling of birds, how to take morphometric measurements, selection of the correct size of ring and how to fit leg rings safely. Practical sessions were then followed by class room sessions where theory on different trapping methods for different species was discussed, as well as ringing schemes and codes from around the world, alternative tagging methods and theory on feather moult.

SIF would like to thank Jerry and Ron for all their hard work setting up and running the course and congratulations to all the participants. We hope that this training will help you in your future careers and projects!



Participants of the second week of the course © SIF

Phenology monitoring protocol gets an update

As part of ongoing research in the Vallée de Mai phenology monitoring is done on several species. The term 'phenology' can be likened to a natural calendar, involving the response of plants and animals to seasonal and climatic changes in their environment, for example migrating birds and blooming flowers. In the case of the Vallée de Mai, phenology monitoring is the scientific study of repeated biological events of plants such as budding, flowering and fruiting. These events shape the ecology of the entire system so are important to understand. The monitoring was started in 2008 on selected trees to gain a better understanding of flowering and fruiting of native and endemic plants. This research coincided with the beginning of intensive Seychelles black parrot research in 2009, which investigated among other topics the parrot's feeding ecology.



Phenology data collection © SIF

The collection of continuous and accurate data on plant phenology is one of the most important monitoring programmes of the research programme. The three main aims of the plant phenology monitoring in the Vallée de Mai are to: (1) investigate fluctuating food availability for black parrots; (2) study the seasonal changes and reproductive success of key plant species of the Vallée de Mai to gain a better understanding of their distribution and limitations; and (3) collect a long-term phenology dataset to supplement

and contextualise other studies carried out at the site.

Bwakalou (*Memecylon elaeagni*)



Buds: Flower buds becomes slightly tinged with blue.

Flowers: Axillary flowers which are variable but normally white and softly blue-tinted.

Fruits: Small purple-blue berries when ripe.

Buds, flowers and fruits *Memecylon elaeagni* © SIF

The phenology protocol has been refined since the monitoring started, initially increasing the number of plant species and frequency of data collection. The research team is now amending the methods to improve consistency across data collectors, including those that are new and relatively inexperienced, while maintaining compatibility with the older data. This should lead to improved data collection for this important monitoring programme.

Stewardship scheme teaches students about reforestation at experimental plot



Tree planting © SIF

In 2013 SIF initiated a stewardship plot scheme with the aim of further educating students and the local community about the importance of native

species and the impacts of invasive species on them. The scheme included the designation of an area in which to learn about the management of both native and invasive species. Situated along the borders of Fond Peper, the plot continues to be used to demonstrate the removal of invasive plants such as vya tang (*Dieffenbachia seguine*) and philodendron (*Epipremnum aureum*), and to teach students to reforest the area by planting native and endemic plant species.



Students from the International School Seychelles © SIF

On the 28th March 2017 a group of 41 students and four teachers from the International School Seychelles on Mahé assisted with a planting session in the stewardship scheme plot. With the assistance of Maria Brioche the Vallée de Mai's education and outreach programme officer the group removed invasive species in two sections in the plot. Following the removal of these invasive individuals, two sections of the plot were selected for planting endemic species. The first section is situated near the road before crossing the river in a relatively dry area and a total of 30 mixed latannien lat (*Verschaffeltia splendida*) and palmis (*Deckenia nobilis*) seedlings were planted. The second section is situated in a waterlogged area and 15 pandanus (*Martellidendron hornei*) seedlings were planted. Although the reforestation efforts were hard work the students also had fun and enjoyed learning about invasive plants and their impact on native plant species.

Vallée de Mai celebrates Earth Hour with a special night safari

To celebrate Earth Hour on Saturday 25th March an extremely large group of 105 people from different organisations on Praslin participated in a night safari at the Vallée de Mai. Participants included various schools, religious groups and private companies. As well as being an opportunity to join in on the Earth Hour celebrations happening all over the world, the night safari was organised to allow participants to experience the Vallée de Mai at night, an experience that is not usually possible. At night visitors to the forest are able to discover nocturnal species that are generally not seen during the day.



Participants preparing for the night safari © SIF

Due to the popularity of the event and the large number of people attending, the participants were divided into three groups and were guided through the reserve by different SIF staff members. They encountered many exciting nocturnal residents.

It was an amazing experience for most of the participants. The seldom seen species they spotted included chameleons, a house snake, tree frogs, sooglossid frogs, bronze geckos and white slugs. One group was lucky to spot a giant bronze gecko licking the nectar from the coco de mer female flower. The participants described this as the experience of a life time!



Tree frog © SIF



aldabra atoll

National Assembly Islands Committee visits Aldabra

The recently appointed Islands Committee of the National Assembly has been making efforts to familiarise itself with the management of Seychelles' Outer Islands and the SIF board of trustees therefore invited the committee to visit Aldabra Atoll. The visit was coincided with the AGM of the SIF board and organised in collaboration with IDC to reduce costs.



Members of the Islands Committee disembarking the boat © Adam Mitchell

SIF's CEO Dr Frauke Fleischer-Dogley and Aldabra Island Manager Jude Brice welcomed the committee on the 28th March. An intense programme to make the most of the one day visit was organised to ensure that the exceptional

beauty and universal value of Aldabra could be fully appreciated by all members of the Islands Committee. The logistical challenges of managing the atoll due to its remoteness, the tides and difficulty of access was experienced first-hand by the visitors when coming in late after visiting the frigate colony some had to engage in a substantial walk back to La Gigi!



Islands Committee of the National Assembly © SIF

During the visit, the formal and informal exchange of information between all members of the group was very enriching. Several specific issues were discussed in more detail, for example, the proposed extension of the Aldabra Special Reserve to better protect marine pelagic species. Another topic was the urgent need to amend the Seychelles Islands Foundation Decree of 1979 to better reflect the current mandate of the foundation. The chairman of the Islands Committee Honourable Ramkalawan said "the annual effort of SIF for school children to experience Aldabra is fantastic". The vice chairman of the Islands Committee Honourable Decommarmond noted that "the visit allowed the committee to better understand the work being done by SIF, as well as the importance of protecting this unique UNESCO world heritage site. The results of the first 40 years of full protection of the atoll clearly justify the proposed enlargement of the reserve which will afford better protection to wide ranging marine species".

The trip by the members of the Islands Committee is historic since it was the first visit by members of the National Assembly to Aldabra.

Eco-schools award winners explore Aldabra



Eco-schools students enjoying the view © Adam Mitchell

Between 22nd and 24th March, the 2016 Eco-schools award winners visited Aldabra; the group consisted of 11 lucky students, aged between 8 and 16. One student actually celebrated her birthday on Aldabra, and had what was probably the first 16th birthday party on the atoll in many years! The students were joined on the trip by five teachers. This was the third annual Eco-schools trip to Aldabra since the 5 year hiatus between 2009 and 2013 due to the threat of piracy.

As they arrived at low tide, reaching the station on Picard Island required wading across the Settlement Beach lagoon and the students were able to meet Settlement Beach's friendly resident blacktip reef sharks up close. Having grown up on Mahé, most of the students had never seen a live shark, but the teachers were more nervous of them than the students!



Students interacting with Aldabra's wildlife © SIF

During their stay the students participated in turtle patrols, snorkelling trips and a lagoon cruise, including a visit to the frigatebird and booby colony at Grande Poche, one of the major seabird nesting colonies on Aldabra on Picard's lagoon side. These excursions were undertaken to introduce specific themes; for example, the lagoon cruise covered the theme of discovering the importance of mangroves. The students learned about how many different types of mangroves have overcome the problems of living in a salty environment, often using similar solutions. Returning from the lagoon cruise along the coast the boats they were intercepted first by a heavy rainstorm (from which the adults all took shelter, but the students were unfazed!), and then by a pod of Aldabra's resident spinner dolphins.



Saying goodbye to SIF staff © Adam Mitchell

The students also took part in a clean-up of settlement beach, with one of the teachers, Andy Alvis, constructing a fish and shark mobile from the flip-flops they collected. The students soon began making their own artwork and the wall of the mess is now adorned with turtles, sharks, boobies and flamingos.

After an emotional farewell, the students again waded back across the lagoon in order to board their final transport back to Assumption, for their flight back to Mahé – with all of them promising they'll be back one day!

Aldabra



The last farewell! © SIF

Annual BRUV surveys completed

The Aldabra team conducted the annual BRUV surveys in March. BRUV stands for Baited Remote Underwater Video and is a very exciting way to survey groupers, large assemblages of snappers and usually diver-shy sharks and rays at depths of up to 50m. Thirty videos of one hour each are collected annually in six different zones around the west and south coast of Aldabra. The zones have been selected to represent subsistence fishing and conservation areas to determine the impact of the subsistence fishery on Aldabra's fish community. In this way, SIF can respond with adaptive management strategies to reduce the impact, making it a very useful tool for the conservation of Aldabra's fish community.

The BRUV equipment consists of a large, heavy stainless steel tripod with a GoPro attached to the base, and a bait canister attached to a long



Potato grouper © SIF

leg. The bait canister is filled with juicy fish guts and gills, leftovers from fishing trips for Aldabra's

subsistence use. The whole rig is attached to a rope and a buoy, deployed to a specified depth and left alone for an hour to record whatever is attracted to that delicious smell!



The marine monitoring team collecting footage © SIF

Weather conditions in March were not ideal – strong winds and big waves along with heavy surge that gave the team motion sickness made surveying tricky at times. However, the long and uncomfortable hours on the boat completely paid off: 24 videos were collected and they show some very exciting footage! To see some of the footage, check out the SIF You Tube channel at <https://www.youtube.com/channel/UckZa8GzuGTMgLYZn4G8qwww>.



Grey reef sharks and bluestripe snappers © SIF

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