



Aldabra House architect and exhibition designer visit Aldabra



Julia Barfield (right) and Mike Hawkes (left) at Aldabra © SIF

Appointed architect for the remote visitor centre planned for Aldabra (the 'Aldabra House project') from Marks Barfield Architects, Julia Barfield, and exhibition designer from Real Studios, Mike Hawkes, had the once in a lifetime opportunity to experience Aldabra first-hand earlier this month.

To gain a better understanding of Aldabra, its beauty and its challenges, they spent six days at the research station on Picard with the SIF team. This trip was important for Julia and Mike to familiarise themselves with this extraordinary place but also to work closely with the island staff and incorporate their ideas and visions into the Aldabra House project. They experienced the incredible wildlife and harsh conditions on the atoll, in addition to difficult logistics in this very remote location. They were also able to hear some personal perspectives from the staff about life working on Aldabra which will be key to some of the exhibitions planned for Aldabra House.

The visit will allow a greater understanding by Marks Barfield and Real Studios of SIF's aims for Aldabra House and how to effectively communicate this vision to visitors. Countless ideas were discussed during their excursions around the atoll and many of these will be developed and realised when the exciting new Aldabra House opens its doors on Mahé, inviting everybody to have their own Aldabra experience.

Coral-killing sponge being monitored at Aldabra



A coral on the Aldabra reef with *T. hoshinota* growing on top (the black area in the bottom left of the photo) © SIF

During Aldabra's outer reef mapping project in 2012, an encrusting sponge identified as *Terpios hoshinota* was observed at high densities on the coral reefs around the atoll. This caused significant concern as this sponge has been responsible for massive and rapid coral mortality in other parts of the world.

Growth of *Terpios hoshinota*, also known as the 'Black Disease' was originally described from Guam in the



Mynah bird survey in the Vallée de Mai



A Mynah bird loiters outside the Vallée de Mai © SIF

Alongside the efforts to remove invasive trees in the Vallée de Mai, the invasive alien species team on Praslin have completed a Mynah bird survey in the Vallée de Mai this month.

The Indian Mynah bird (*Acridotheres tristis*) is not native to the Seychelles but is extremely common and well established on many of the granitic islands. Mynah birds are included in the top 100 list of the world's worst invasive alien species by the IUCN's Global Invasive Species Database. Mynah Birds are already being controlled on several islands in the Seychelles due to their severe impacts on native birds. The presence of mynahs in the Vallée de Mai is also a concern and the birds pose a particular threat to the Seychelles Black Parrot through competition for nest sites, and suspected killing of eggs and chicks.

Mynah Birds were included in a Praslin-wide survey focussing on Black Parrots in early 2011. In this survey mynahs were primarily associated with urban habits and there were no observations of the species in the Vallée de Mai or surrounding Praslin National Park. Recently however, increasing numbers of mynahs have been seen in the Vallée de Mai so a survey was needed to confirm and quantify the observation.



Mynah birds are increasingly observed in the Vallée de Mai © SIF

A 2-week point count survey was conducted during December in the Vallée de Mai and surrounding National Park. The team visited 23 points across the area in the morning and afternoon to detect the presence of the mynahs. Other bird species were also noted, including Black Parrots (*Coracopsis barklyi*), Seychelles Bulbuls, and Seychelles Blue Pigeons.

One output of the survey will be a distribution map of the Mynah Bird in the Vallée de Mai and National Park. The survey results will also make it possible to compare current Mynah Bird abundance in the area with numbers of 4 years ago and to predict likely trends. The results, in combination with observations of Mynah Bird impacts on black parrots, will be used to decide if further monitoring or management, including control actions, are warranted.



First Black Parrot chicks of the season



One of the newly hatched Black Parrot chicks in the Vallée de Mai © SIF

Since our last newsletter in November, the Black Parrots have become much more active in their breeding activity with both the first eggs and chicks located!

Early in December, the first nest with eggs was located in Fond Peper (an area adjacent to the Vallée de Mai) which contained four eggs. Two chicks have now hatched in this nest but the other two eggs did not hatch. This is not uncommon although the exact reason for the egg failure is unknown.

In total the team has now located 13 nests in the areas of the Vallée de Mai, Fond Peper and Fond Ferdinand, of which 12 are currently active. One of the nests in Fond Ferdinand which contained only one egg was lost. The team is unsure as to the cause of the egg loss but the egg may have been taken by a rat or other nest predator. Active searches are ongoing by the research team to locate more nests in other parts of the Praslin National Park, plus Zimbabwe and Fond B'Offay areas.

To date nine chicks have hatched from these 12 nests. The team is closely monitoring all active nests, checking them regularly and also ensuring minimal disturbance by visitors and guides in the Vallée de Mai. We will keep all Black Parrot fans updated with regular posts on our Facebook page and further newsletter updates.

SIF 6th children's holiday camp held at the Vallée de Mai



The holiday camp participants bird watching at Glacis Noire © SIF

SIF once again held an educational children's holiday camp during the week 15th–19th December at the Vallée de Mai. During this sixth SIF holiday camp a variety of environmental education activities were organized for a group of 25 children from Praslin. They had the opportunity to learn about the flora and fauna of both Seychelles' UNESCO World Heritage Sites, the Vallée de Mai and Aldabra, and also to learn more about the natural environment in general.

During the five-day holiday camp programme the children learned about different topics such as birds of Seychelles, the Vallée de Mai forest ecosystem, and the marine ecosystem. Aldabra Atoll was a fantastic example to use for marine ecosystem education and Ms Gemma Jessy, a long-term associate of SIF, shared her experiences of Aldabra with the children who marvelled at the stories of the marine life of such a unique place.



Pacific Ocean in 1973 and has since been reported spreading westwards into the Indian Ocean. This sponge poses a major threat to coral communities as it grows rapidly and widely on coral substrate and can outcompete and 'suffocate' hard corals. It also releases compounds that are toxic to other reef organisms. Once the sponge has colonized an area of the reef it can last for over a decade, dominating the reef bottom and preventing the recruitment of juvenile corals. Outbreaks of *T. hoshinota* have been recognized as a probable cause of large scale coral mortality and rapid degradation of coral communities in other parts of the world. However, exactly what causes these 'outbreaks' is still unknown.

In the case of Aldabra, it is not yet clear if the sponge occurs as a natural part of the reef's ecosystem or whether it is at unsustainable levels. Given the already documented negative effects of this sponge, it is regarded as a potential invasive species which warrants further study.

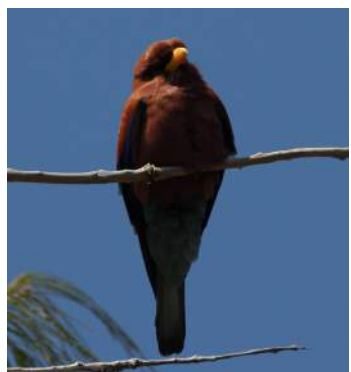


Staff on Aldabra undertaking the sponge monitoring programme © SIF

A monitoring programme for this species was therefore started by SIF staff at Aldabra with three main aims; (1) to establish the current distribution of *T. hoshinota* around the atoll; (2) to determine whether *T. hoshinota* is presently outcompeting corals; and (3) to assess the rate of the spread of *T. hoshinota* on affected colonies. Surveys are ongoing on transects at depths of 5 and 15 m around the atoll with results expected in 2015.

Outbreaks of *T. hoshinota* in other places have been associated with pollution, coastal development and other human activities so the hope is that Aldabra's reefs will have some resilience due to their relative lack of disturbance.

Aldabra's feathered visitors



Broad-billed Roller at Aldabra © C Onezia

Every year Aldabra welcomes vagrant and migrating birds to its shores during the northwest monsoon period (October–April). 2014/2015 has been no exception with 14 species of non-resident bird being recorded on Aldabra so far this season.

Bird migration is the regular seasonal movement, often north and south, along a flyway, between breeding and wintering grounds. Many species of bird migrate for different reasons, such as changes in food availability or habitat. Sometimes, journeys are not 'true migration' because they are irregular (e.g. nomadism, invasions, sudden increases in numbers) or in only one direction (dispersal, movement of young away from natal area). These journeys are often challenging for the birds but if they did not migrate food availability in their breeding areas would be rapidly depleted, and many young would starve. One migrant is the crab plover; Aldabra hosts over 5% of the global wintering population of this species along with tens of thousands of other migrants, making for an ever-changing and always fascinating bird composition on the atoll.



Yellow Crazy Ant survey completed in the Vallée de Mai



Examining the Yellow Crazy Ants as part of the survey © SIF

During December, the fifth Yellow Crazy Ant survey (see November 2014 newsletter) was completed and expanded to obtain information about the feeding, competence and coexistence of this invasive ant with other species.

Compared to previous surveys, the new survey was completed with an increased number of sampling points across the same area, leading to a finer-scale assessment of crazy ant distribution. Pitfall traps were used for the first time to assess the presence of other ant species (at least nine other species of ant occur in the Vallée de Mai) and investigate co-occurrence and possible competition between these species. The survey also investigated the mutualism between the crazy ants and different species of introduced scale insect in the palm forest habitat.

The team are now analysing and interpreting the survey data. Initial results are that there is no significant change in the distribution or total area of the crazy ants in the Vallée de Mai since the last survey 1 year ago, which is good news. Several ant species have been caught in the pitfall traps so their inclusion has been successful in terms of capturing other species, but the patterns of co-occurrence still need to be analysed. Mutualistic interactions with scale insects have also been commonly observed, which we hope will shed some light on why this species has invaded some parts of the Vallée de Mai and not others. More results will be provided in due course.

Ring-necked Parakeet team visit Praslin

The Ring-necked Parakeet eradication team, usually based on Mahé, spent a week on Praslin in December to follow up reports of the introduced parakeet on Praslin and try to determine its movement pattern and feeding areas. Reports of a Ring-necked Parakeet on Praslin were first made in September, which caused significant concern because of the increased threat to the Black Parrot. Observation sessions by staff were arranged for the next 2 months and there have since been sporadic sightings but no fixed pattern and the presence of the bird has not yet been possible to confirm.

The team spent the week talking to all staff and guides at the Vallée de Mai, covering everyone who has reported hearing or seeing a parakeet on the island. They conducted observations at key viewpoints in areas where the bird had been reported and talked to members of the public, including several fruit farmers. Some people remained certain that they had seen a Ring-necked Parakeet, others were less certain when questioned on exactly what they had seen or heard. The team also distributed awareness posters across the island, and showed pictures and played the call to staff to help them distinguish it from other species.

By the end of the week, the team had not seen or heard any sign of a parakeet on Praslin. This does not rule out the presence of a parakeet on Praslin but the situation requires further observations to be able to confirm its occurrence or absence – the latter is far more difficult to verify. The team will be returning to Praslin in mid-January to continue their investigations. In the meantime we would welcome calls from anyone who has any information on Ring-necked Parakeets on Praslin. Please call SIF on 2523623.



Rio and students take part in National Geographic shoot



Models of a forest ecosystem made during the holiday camp by the children © SIF

The programme ended with a small ceremony to present each student with a certificate for their participation in the camp. SIF has also launched an essay writing competition on the theme of Aldabra in local schools for students and teachers. The winners of this competition were presented with their prizes during the ceremony. To celebrate the festive season the holiday camp students then joined with the staff of the Vallée de Mai's children for a small Christmas party, and were even treated to a visit by Father Christmas. SIF would like to take this opportunity to thank all of our sponsors and facilitators for making this holiday camp a success once again.

Results of first 4 years of SIF Black Parrot breeding research published



A Black Parrot chick © SIF

Results from the first four years of SIF research on Seychelles Black Parrot breeding have been published in the African bird journal *Ostrich* in a special issue of the journal focussing on African parrots. The manuscript presents data from the first four monitored breeding seasons from 2009 to 2013 and is the most comprehensive study of black parrot breeding ecology published to date.

A total of 36 nests were monitored over the study period and overall nest success (nests with at least one chick fledging) was 53%. A key finding was that Black Rats are important nest predators, causing the failure of up to 33% of nests. Mynah Birds were also implicated in nest failures.

In the core breeding area 96% of the nests were in Coco de Mer trunks, and deep cavities with good canopy cover were preferred by the parrots. Nest site turnover, however, was found to be relatively high due to dead palm trunks falling or deteriorating. Breeding activity (not only success) varied substantially between the four seasons for as yet unknown reasons. In very active seasons it is possible that a shortage of high quality nesting cavities limits breeding success. A positive finding is that at least 57% of fledglings survived their first year, which is a relatively high survival rate for birds.

The paper also documents some fascinating breeding behaviour of the Black Parrots, for example they practice very unusual side-by-side copulation, and confirms that the species breeds cooperatively (i.e. with 'helpers' at the nest). All of the information in the paper is not only of great interest for parrot lovers but is important for conservation management of the Black Parrot.

This information and much more detail can be found in the paper which is available online at <http://www.tandfonline.com/doi/abs/10.2989/00306525.2014.997841#VKxol2dCB8E> or contact SIF by email for a copy.

The full citation for the paper is: Reuleaux A, Richards H, Payet T, Villard P, Waltert M & Bunbury N. (2014). Breeding ecology of the Seychelles Black Parrot *Coracopsis barklyi*. *Ostrich* 85: 255–265

In the festive spirit at the Vallée de Mai



The Vallée de Mai choir performing at the concert © SIF

To get into the festive spirit SIF once again held a charity Christmas Carol concert at the Vallée de Mai this year on 19th December. The money raised from this concert will be used to purchase much needed items for the children in the local community on Praslin who are mentally or physically challenged.

The concert attracted a large crowd with choirs from several of the local churches, community groups and youth groups participating and singing their favourite hymns and carols. Father Christmas kindly made an appearance and the children were delighted to have their photo taken with him. The concert was a great way for the local community to come together and the Vallée de Mai is increasingly becoming a focal point for these community activities.



Aldabra also hosts several vagrant birds each season, which are individual birds occurring well outside their normal range. A number of factors influence the occurrence of vagrants, including weather conditions (storms and unexpected winds can blow birds off their usual course), inexperience of juvenile birds and genetic abnormalities in birds' magnetic sense. Recent vagrants to Aldabra have been the Eurasian Golden Oriole, Arctic Skua, Common Cuckoo and Spotted Flycatcher.

It is always fascinating to see which birds will appear at Aldabra during the northwest monsoon. Some species are such regular visitors that they are now considered annual visitors by the Seychelles Bird Record Committee, including as the Broad-billed Roller and Tree Pipit. The staff on Aldabra will be keeping us posted with more of these sightings and updates will be given on our Facebook page.

Aldabra welcomes lottery winners



A group photo of the Aldabra team with the prize winners © SIF

Two pairs of national lottery ticket winners got the chance to visit Aldabra for a week this month. These four Seychellois nationals were the lucky winners of a trip to Aldabra which had been substantially delayed due to the heightened piracy risk in the Western Indian Ocean.

Dennis Labrosse and his wife, and Maryvonne Zarine and her son, were delighted to finally visit the atoll which was indeed a 'trip of a lifetime' and is the dream of many Seychellois. The prize winners were able to explore the atoll with the guidance of the SIF staff. They took a lagoon trip to see the frigatebird colony and to learn more about these birds. They also had the chance to visit Malabar Island and experience life at one of the field camps. The group were treated to playful dolphins en route and a snorkel in magical Passe Hoareau. They prize winners also assisted with Giant Tortoise monitoring on Malabar and were delighted to have the chance to participate in this research. Maryvonne said she felt "blessed to witness such beauty". We would like to thank the four visitors for their good humour and enthusiasm throughout the trip – they were a pleasure to host on Aldabra!



One of the students being photographed with Rio © SIF

The photographer from National Geographic Magazine, Mr Thomas Peschak, visited Vijay International School on the 3rd December to take photographs of Rio, the tame Black Parrot, interacting with members of the Friends of Vallée de Mai club. The children were photographed with Rio on their shoulder and holding pictures they had drawn of their favourite black parrot. This photo shoot was a fantastic experience for them as there was the chance that they might have their picture published in the world renowned National Geographic Magazine, and of course they got to spend time with the infamous Rio.



One of the children with Father Christmas © SIF

This is one way for SIF to assist in the development of the community and we hope to hold more of these activities in the future.

SIF on Twitter!



Follow us on Twitter! As one of the top ten most used social media websites, Twitter offers us a chance to connect and share with a truly international audience. If you are regular Twitter user then you can find us under @SIF_Seychelles. For those of you new to this social media page why not sign up now? You can find the link to our page here, https://twitter.com/SIF_Seychelles, and can follow all of our latest updates and news.



Don't forget to like our Facebook page! The page has regular news and updates on research and events at both World Heritage Sites. We would invite all friends, supporters, partners, colleagues, and anyone else who has an interest in staying up to date with the management and protection of the UNESCO World Heritage Sites in the Seychelles, or in Seychelles' biodiversity and conservation in general to become a fan of our page. For those who have a Facebook account already please use this link https://www.facebook.com/pages/Seychelles-Islands-Foundation-SIF/1414466072110654?hc_location=stream and 'Like' our page. For those that are not on Facebook then perhaps you can receive updates through a friend or family members account, or maybe now is the time to join Facebook for yourself! We look forward to welcoming you onto this page!

Final visit from S1 students



The students in the Vallée de Mai © SIF

The final visit under the Seychelles National Youth Council (SNYC) initiative was conducted in December with a group of 350 secondary school children visiting the Vallée de Mai this month.

The children came from Pointe Larue, Anse Boileau and Mont Fleuri secondary schools and visited over two days. SIF staff conducted guided tours of the forest for the children in smaller groups throughout the day where they could discover the flora and fauna of the Vallée de Mai. They had the chance to see many different endemic species such as the Seychelles Chameleon, Black Parrots, Seychelles Tree Frog and endemic palms in the Vallée de Mai. After each tour the children answered questions about one of these species to reinforce what they had learned in the forest.

The aim of the SNYC nationwide outreach programme is for Seychellois children to have some educational experiences outside their normal learning environment. SIF have been a proud partner of this initiative in 2014 and we look forward to working with SNYC again in the future.