seychelles islands foundation

Newsletter

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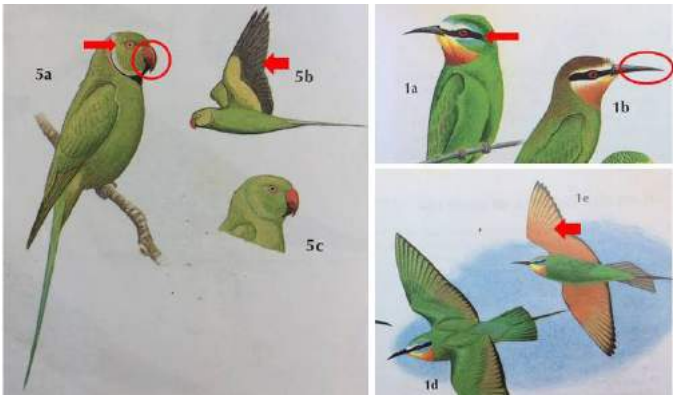
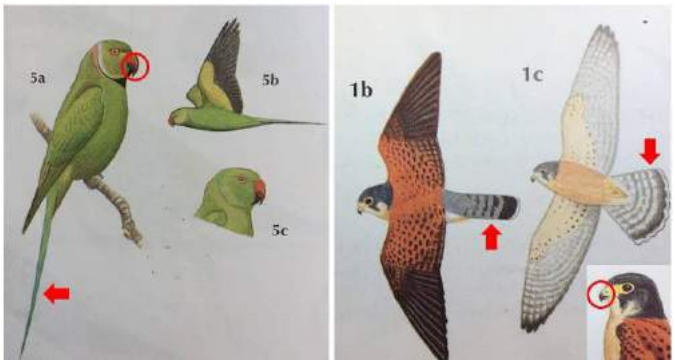
Final ring-necked parakeet monitoring underway

The last known ring-necked parakeet or kato ver (*Psittacula krameri*) on Mahé was culled by the eradication team in August 2017 (see August 2017 newsletter) which means that with almost a year of no parakeet sightings it is time for comprehensive and systematic follow-up surveys to see if the eradication can be declared successful. To conduct these surveys Julio Agricole and Jessica Moumou have been recruited as the ring-necked parakeet project team to verify eradication. Jessica and Julio have both recently graduated from the BSc course in Environmental Science at the University of Seychelles, and they re-join the SIF team with a wealth of bird eradication experience, having both worked on the bird eradication projects on Aldabra and Assomption, and on previous phases of the ring-necked parakeet eradication on Mahé.

Over the next two months Jessica and Julio will be in the field every day searching previous ring-necked parakeet habitat for any remaining birds. As with previous phases of the project they will be relying heavily on information provided by the public. Mahé is a large area to search and sightings reports from the public will be key to determining if there are still any birds out there. The ring-necked parakeet is a very distinctive bird, but if seen at a distance it is possible to mistake them for the blue-cheeked bee-eater or the Seychelles kestrel. If you are unsure which bird you've seen the pictures on the right will help you spot the difference.



Ring-necked parakeet (left) and blue-cheeked bee-eater (right). Note the differences in the beak shape, the colours on the underside of the wings, and the black markings at the bee-eater's eye © Skerrett etc al., 2001, Birds of Seychelles.



Ring-necked parakeet (left) and Seychelles kestrel (right). Although the colouration is very different this can be difficult to see in dark lighting or high in the canopy. Note the differences in the beak colour and the length and shape of the tail © Skerrett etc al., 2001, Birds of Seychelles.

The bounty awards have been increased again to **SCR 1000 for a parakeet sighting** which is confirmed by the eradication team, and **SCR 5000 for a confirmed sighting which then leads to a cull by the team**. If you have any information on recent sightings of these birds please contact the team as soon as possible on 2523623. Any remaining birds are likely to be very wary and cautious so please do not attempt to catch or approach them, just take note of what the bird is doing and the date, time and place, and then call SIF!

SIF participates in the National Show

The annual National Show took place on Mahé on the last weekend of June, and we were happy to once again participate in the Eco-Village. The Eco-Village was organised by the Ministry of Environment, Energy and Climate Change, with participation by many of Seychelles' most enthusiastic environmentalists and the organisations they represent. This year the SIF stand was focused on Aldabra, with games and activities to learn about marine plastic pollution and what each of us can do to reduce our environmental impact.

Matching common plastic consumer items with their decomposition rates © SIF

The most popular game at the SIF stand involved matching seven common plastic consumer items with the number of years it would take for them to decompose in the sea. Plastics don't biodegrade like natural materials. They either photodegrade (from sunlight) or they mechanically degrade into smaller and smaller pieces that will remain on the planet for thousands of years. While people were generally aware of the longevity of PET bottles and plastic bags they were shocked to discover that diapers and sanitary bags would take between 250 and 500 years to decompose in the sea. This is a shocking impact from a seemingly harmless item.

Examining facewash through the microscope © SIF

Also popular was a microscope showing various personal hygiene products, including toothpaste and facewash, which contain plastic micro beads. Micro beads are added to products for their exfoliating properties, however when used they enter the sewage system and eventually end up in rivers and the sea. Once in the sea they are eaten by small organisms and in turn by larger species, eventually ending up in the fish we eat. These release and attract chemicals that are harmful to species across the entire food chain, including people. Some countries have started banning micro beads, but unfortunately most still sell them. The best thing consumers can do is research products before you buy them and reject any that contain plastic micro beads.

Although the game and microscope were popular, the stars of the show were undoubtedly the life-sized turtle and tortoise. They made friends and stole hearts every day of the 2018 National Show!

Making friends with the tortoise and each other! © SIF

SIF science and projects coordinator attends training on the Nansen Research Vessel

The research vessel Dr Fridtjof Nansen © SIF

In June, science and projects coordinator Jennifer Appoo enjoyed two weeks of training aboard the Norwegian research vessel Dr Fridtjof Nansen. The vessel departed from Port Louis, Mauritius and surveyed an oceanographic transect across the Indian Ocean until Colombo, Sri Lanka. Aboard the vessel, Jennifer learnt multiple methods and technologies used for surveying several oceanographic parameters and biological sampling.

Manta trawl used for sampling microplastics on the water surface © SIF

The main objectives of the transect were to explore biogeochemical properties of the Indian Ocean and the distribution of mesopelagic fish, fish living between 200 and 1000m. During the research trip Jennifer learnt how to collect data on water chemistry including oceans pH, alkalinity, salinity, dissolved oxygen, nutrient and primary productivity. Water samples were collected down to 2500m deep! Jennifer formed part of the biological sampling group and was involved in sampling zooplankton and phytoplankton at different depths using vertical net hauls as well as sampling mesopelagic fish using pelagic trawls. A final component involved sampling of microplastics and marine debris on the water surface and in deep water. Jennifer had truly an enriching and rewarding experience aboard the Nansen vessel. She found most interesting to see first-hand the fish community composition in deep waters and the different adaptations of fish living in cold and dark environment conditions. Several specimens of the fish were collected for further identification and studies.

Jennifer sorting the pelagic catch for sampling and identification © SIF

The training was assisted by researchers from the Institute of Marine Research in Norway and included other participants from South Africa, India and Sri Lanka. The main aims of the Nansen research vessel surveys are to contribute to capacity development in less developed countries and to assist other countries in obtaining oceanographic data. The vessel previously surveyed the Seychelles waters and has now continued to survey the Bay of Bengal.

Lanternfish forms the bulk of the mesopelagic fish composition and have special light organs called photophores on their body © SIF

Coral News Vol. III: Pretty as a parrot

Steephead parrotfish © SIF

Look at this beautiful steephead parrotfish we've seen in Aldabra's shallow lagoon. Together with many other algae grazing fish species, parrotfish represent a very important functional group on coral reefs. Although benthic algae are a natural and important part of coral reefs, they generally grow much faster than corals, and can outcompete and suppress coral growth under certain circumstances - such as increased reef pollution, overfishing of herbivorous fish or after a coral bleaching event. But parrotfish do not just graze on algae: their strong teeth allow them to scrape algae off rocks, leaving characteristic feeding marks which in turn provide new settlement space for other organisms like coral larvae. And by the way, the pieces of rock parrotfish eat are 'ejected' as sand, making these fish very important sand producers – a fun fact to remember next time you're sun-tanning on a beach made of parrotfish excretion ! Check back in next month where we will feature a bit more about Aldabra's geology and yet another reason why coral reefs are awesome.

SIF Vacancies

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

Aldabra:

- Tourism Coordinator
- Shopkeeper
- Maintenance and Logistic assistant
- Ranger

Vallée de Mai:

- Visitor Attendant
- Visitor Centre Service Coordinator
- Ranger
- Field Research Officer

Inva'Ziles team hosts forum on invasive alien species

During June the Inva'Ziles project team organised a forum for all conservation organisations in Seychelles to get together and discuss invasive alien species management, control and eradication. The forum was about 'Sharing Good Practice' - allowing each organisation to share experiences, techniques and challenges in working with invasive alien species. The forum was held on Praslin and was attended by 30 delegates, representing 11 organisations from eight of the inner islands, which is a great turn out! During the forum there was a range of presentations covering topics from bird eradication to invasive plant management, followed by interactive workshops to discuss each other's invasive alien species work. The forum was a great success and was inspiring and helpful for participants.

Participants enjoyed a wide range of presentations during the forum © SIF

One of the workshops also focused on what the next step for the forum could be, and an online platform has since been devised. The platform will be a place to share lessons learnt, as well as useful information on all invasive alien species occurring in Seychelles. Anyone working with invasive alien species in Seychelles is free to join and welcome to get involved in the discussions. The more we share our knowledge and experiences, the better we can tackle invasive alien species on all the Seychelles islands!

Invasive strawberry guava (left) and dumb cane (right) prior to removal by the Inva'Ziles team © SIF

The continuation of the invasive alien plant control has also been top of the agenda for the Inva'Ziles and Vallée de Mai teams, and during June work to tackle the coco-plum (*Chrysobalanus icaco*) and guava (*Pisidium cattleianum*) around the firebreak has nearly been completed – both species are now 90% removed from the site which is great progress. The removal of these problem plants ensures that Vallée de Mai is kept as a prime example of endemic palm forest and the perfect home for the Seychelles black parrot and other endemic species.

World Environment Day anti-poaching march held on Praslin

As part of activities for World Environment Day,

SIF once again organised a march on Praslin to raise awareness among the community about the issue of poaching in the Vallée de Mai and elsewhere on the island. As with previous years the coco de mer was highlighted, but new this year was a focus on another Praslin endemic, the giant bronze gecko (*Ailuronyx trachygaster*). The giant bronze gecko is a rare and highly specialised species with a tiny distribution. It lives in the canopy of mature coco de mer forest of Praslin. The species has a very restricted range and is therefore highly vulnerable to any further loss or degradation of its habitat, for example through the spread of invasive species. In the last year reports have started to emerge that this national treasure is being poached in order to supply the international reptile trade. As well as highlighting poaching, in this year's march the Vallée de Mai team also wanted to incorporate the importance of fitness for a healthier lifestyle into the event, and the team therefore worked in close collaboration with both the Ministry of Health and the National Sports Council to merge these themes.

The march was led by the SIF CEO and the Vallée de Mai site manager © SIF

Thirty-six organisations joined us against poaching, offering their support towards the protection of the coco de mer and the giant bronze gecko. They gathered on the day of the event to make their voices heard to other people in the community, aiming to sensitize them to this issue that affects not only the Vallée de Ma but also the whole community of Praslin. Although most of the participants were local Praslinois, this year SIF staff were happy to be joined by some tourists.

To start off the afternoon's events officials from the Ministry of Health were present at the Vallée de Mai visitor centre to conduct some basic health checks on participants who were keen to be tested. After the health checks were performed participants gathered at the Vallée de Mai car park for the start of the march. SIF CEO, Dr Frauke Fleischer-Dogley launched the event with a short speech followed by the cutting of ribbons to kick start the march.

Adults and children participated in the march in support of the coco de mer and the giant bronze gecko © SIF

Escorted by the Seychelles Police the crowd walked down the road towards Grand Anse football field. This year since, in keeping with the joint focus on keeping fit, the march was quite fast paced. Upon arrival at Nouvelle Decouverte the participants started singing and shouting messages against the poaching of the coco de mer and giant bronze gecko. People came out from their houses and shops to investigate the source of the noise. The participants really made their presence known!

Upon arrival at the Grand Anse playing field participants ran around the field with their banners then gathered for a song performance

by Brian Brigillia and a dance performance by students from Baie Ste Anne primary school. The event was finished off with a cardio fitness session. Thank you to all who participated!

Participants enjoyed walking through Praslin's beautiful forest © SIF

World Oceans Day beach clean on La Digue

The annual celebration of World Oceans Day takes place each year on the 8th of June. The theme for World Oceans Day this year was "preventing plastic pollution and encouraging solutions for a healthy ocean".

Hard at work picking up rubbish © SIF

To celebrate this day Seychelles National Parks Authority organised a clean-up activity on the coastal areas of La Digue Island, and they invited the Friends of the Vallée de Mai Club members to participate in this clean-up. A total of 20 Friends of the Vallée de Mai members and teachers joined together with members of the Friends of the Paradise Flycatcher, divers from Trek Diving Centre, and staff from the Land Waste Management Agency, the Ministry of Environment, Energy and Climate Change, and of course Seychelles National Parks Authority.

Isabelle Ravinia, a research officer of Seychelles National Parks Authority, conducted a briefing before the activity started. The group was then divided into smaller groups and were directed to different areas along the coast of La Digue for the clean-up. Equipped with gloves and empty gunny bags children collected all the rubbish they could find in the rocks, gutters, on the beaches and vegetation along the coast. The children were very hardworking and enthusiastic, but unfortunately other members of the community did not join in with the same interest it was sad to observe the lack of interest from those that witnessed the clean-up; on the other hand the children were glad to be setting good examples for them.

After collection the waste was sorted and counted © SIF

Before the smaller groups dispersed to their different locations a time was set for everyone to regroup at the beach opposite the District Administration office. Upon arrival at the meeting point the rubbish was sorted into categories.

Details of rubbish collected are presented in the table below.

Types of Rubbish	Number of Items collected
Metals (including construction waste and miscellaneous items)	540
Glass	182
PET bottles	47
Take-away boxes	21
Cans	22
Clothing	7
Plastic bags/ wrappings	159
Plastic bottle tops	131
Other plastics	238
Others	1869

After data collection the rubbish was placed back into the gunny bags to be weighed, the group collected over half a ton of rubbish. The participants were surprised and saddened by the amount of rubbish, but also relieved to have played a big role in preventing it from ending up in the ocean.

The successful beach-cleaners posed for a celebratory photo © SIF

aldabra atoll

Aldabra Clean-Up Project showcased at State House on World Environment Day

This year's World Environment Day was marked by the official Seychelles launch of the Aldabra Clean-Up Project that took place at State House on the 5th June. SIF is extremely grateful to its Patron President Danny Faure for the support he has shown the initiative. The project is a collaboration between the foundation and the University of Oxford, and as reported in the May newsletter, the UK launch took place in May. The theme for World Environment Day 2018 was "beat plastic pollution" and it was a fitting occasion to launch the project locally. The launch showcased the significance of plastic pollution globally and on Aldabra, and the urgent need to tackle this issue.

Aldabra Clean Up Project

The event was attended by President Danny Faure who is SIF's Patron, the Vice President, the Designated Minister, the Minister of Environment, Energy and Climate Change,

Secretary of States, her Excellency the British High Commissioner to Seychelles, Principal Secretaries, the board members of SIF, the Islands Development Company and the Island Conservation society, CEOs, Aldabra research station retirees, Mr Patrick Victor and of course the selected Aldabra Clean-Up Seychellois volunteers and the SIF project officer.

The president was presented with a large map of Aldabra © Statehouse

The launch included the announcement of the selection for the local volunteers. The six Seychellois volunteers were chosen by a panel of SIF judges through a video competition that invited all Seychellois applicants to share their experience, motivation and ideas in tackling plastic pollution. They also needed to demonstrate their physical fitness and their ability to swim comfortably, as well as their capability of working within a team. These are crucial traits for the Aldabra Clean-Up expedition in March 2019. With a large number of video applications received, selecting the volunteers was not an easy decision!

The six enthusiastic individuals-– Sheena Talma, Craig Francourt, Samuel Ramkalawan, Ashleighne Antao, Ivan Capricieuse and Kalsey Belle- were announced at Statehouse and presented with Certificates of Participation by the President. These young Seychellois come from different backgrounds but have joined the team with the same motivation and aim; become part of the solution to combat plastic pollution. They will be working alongside six Oxford University graduate students - April Burt, Harriet Dowing, Guillaumme Matthews, Chris Woodman, Thomas Zillhart and Rebbeca Goldberg- who have already been doing a lot of fundraising and outreach work in the UK.

The volunteers with President Faure; Ivan Capricieuse, Ashleighne Antao, Kalsey Belle, Samuel Ramkalawan and Craig Francourt (Sheena Talma was absent) © Statehouse

In addition to hosting the launch at Statehouse, the President also showcased Aldabra and the impact of marine debris on the world stage at the Group of Seven (G7) nations meeting held in Quebec, Canada. At a roundtable hosted by Canadian Prime Minister Justin Trudeau to discuss the challenges faced by small islands developing states, President Faure shocked the world leaders with graphic photos of marine pollution on Aldabra, and the impact it is having on the atoll. Marine plastic pollution is a global problem requiring global solutions and it is vital the world leaders are aware of the situation in the oceans.

President Faure at the G7 roundtable © Seychelles News Agency

To learn more about the project and support it, please follow along on twitter: https://twitter.com/AldabraCleanUp or facebook: https://www.facebook.com/AldabraCleanUp/. The project also has a page on the Queen's College, Oxford website: https://www.queens.ox.ac.uk/aldabra where you can meet its team members and donate.

Aldabra House project submitted to Planning Authority

Over the past several months much effort has been put into developing the final building plans for Aldabra House, these were presented to the SIF board of trustees during their Annual General Meeting in April. Having received the green light by the SIF board, the project was consequently submitted to the Planning Authority for approval. This is a major milestone in the development of the project. SIF's CEO Dr Frauke Fleischer-Dogley and the local architect of the project Harry Tirant presented the project to the Planning Authority in May and the team is eagerly awaiting the approval in order to commence the long awaited construction process. A first taste of the future building can be seen onsite, with the building outline having been pegged out as part of the procedure for the planning application.

Aldabra house design © SIF

In June a follow up workshop was held with the exhibition designers in the UK to finalise the scheme design stage and move the exhibition development forward into the detailed design phase. Before the workshop the team worked very hard to develop all the background information and content for exciting and engaging stories, which then was discussed in detail, 'science-proofed' and signed off.

The Aldabra House site located next to the Providence highway © Google Earth

A great addition to the team is the newly recruited Aldabra House science officer, Lorraine Cook. She previously spent a year on Aldabra as a volunteer, during which time she learned first-hand about Aldabra's outstanding universal values, scientific and research work, historical background and the importance of this World Heritage Site. With ten years of experience working with the Department of Conservation in New Zealand managing threatened species and ecosystems, monitoring biodiversity and measuring carbon stocks, Lorraine's excellent scientific skillset will be a huge benefit to ensure that the exhibition design is representative of Aldabra.

SIF is looking forward to seeing the project finally fledging the nest and beginning to fly! In the near future the next exciting milestone will be the celebration of laying the foundation stone, taking the project one step closer to the long awaited start of the construction phase. SIF is very excited for the day that both Seychellois and visitors will be able to visit the state-of-the-art exhibition space and experience a taste of Aldabra for themselves.

Busy month for tortoise monitoring

The month of June on Aldabra was a tortoise-busy month for the research team. In addition to collecting data for all the long term monitoring programmes carried out monthly on Aldabra, the research team completed this season's atoll-wide Aldabra giant tortoise (*Aldabrachelys gigantea*) sweep surveys and Picard tortoise distance surveys.

Lee-Roy measuring a claw of an individual at Ans Var on Picard © SIF

Tortoises have been studied on Aldabra since the early 1970s, with increased effort since 1997. After a review of the programme in 2016, it was decided to add onto and improve the monitoring programme. The revised programme includes sweep and distance surveys, and was designed to allow further information to be collected about the overall populations on each of the islands, and on individuals within those populations, while still allowing comparisons to continue to be made to the historical data. This new, multi-level monitoring programme is more reflective of tortoise distribution through the various habitats and the two monitoring methodologies complement one another. Through advancements in technology such as highly accurate GPS devices, affordable range finders and better understanding of the maths that drive populations, the two methodologies will allow higher data quality and value to be collected.

How does a sweep survey work? Think about sweeping your kitchen; you sweep all corners and areas of the room in an organized way in order to get all the dirt out. Aldabra staff followed a similar methodology in order to encounter all the tortoises found within their pre-determined sweep areas. Since the entire atoll cannot be covered, these chosen areas are used as subsamples of the islands. This is the second time that sweep surveys have been conducted, as part of the re-vamped monitoring programme. Eleven strategically selected sites, ranging from beach dunes and champignon habitat at Dune de Messe and Dune Jean Louis, open champion of Cinq Cases and the woody areas of Middle Camp, were visited and systematically searched for any and all tortoises. For 10 mornings Aldabra staff were able to break out their measuring tapes and callipers to collect information about tail length, scute width (the large disks that make up a tortoise shell), claw dimensions and plaston shape (whether the underside of the shell is flat or concave). This information will be used to further understand and analyse sex ratios, birth and mortality rates, growth rates and spatial distribution, to name a few. Ultimately we hope that this information will give us a clue into how the population is doing

Growth rings © SIF

over time, as our climate changes, and allow us to take the right steps in order to safe guard their future.

For the month of June, the Aldabra staff measured 861 individuals, with one team managing 100 in just one morning. That's 25 tortoises an hour and a whole lot of walking!

In addition to the sweep surveys, the Aldabra team also carried out distance transects for tortoises on Picard, keeping the team busy for another five mornings out of the month. This consists of walking along a transect line and counting all tortoises within 50m on either side of the line. As indicated by the name (distance transect), recorders specifically record how far away any tortoises are from the transect line; the team is able to get these accurate distances with a rangefinder. Following a very clear methodology, these transects will allow the team to determine a population estimation of the number of tortoises occurring in the various habitat types on Picard for June. In total, 128 tortoises were counted! Additionally, and just as excitingly, these transects allow the team to continue contributing data for looking at long term trends of the tortoise population.

We hope that in the next sweep and distance surveys we are able to measure and count even more tortoises!

Not all of the tortoises on Aldabra are enormous! © SIF

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