seychelles islands foundation

Newsletter

November 2018
Issue 71

SIF project officer attends All Hands on Deck forum

Jeremy at All Hands on Deck © Jon Tadiello

From the 7th to 10th November 2018 the Massachusetts Institute of Technology Media Lab, through its Open Ocean initiative, along with the National Oceanic and Atmospheric Administration, hosted the sixth National Ocean Exploration Forum aptly entitled “All Hands on Deck”. The forum brought together participants from 25 countries to discuss the challenges in solving the many problems faced by our oceans. The participants included marine scientists and conservationists, and also a whole range of professionals from the fields of entertainment, education, sports, space, culture, robotics, marketing and art. Their inclusion was central to the message of “All Hands on Deck”: science done traditionally and alone cannot solve the problems of climate change, plastic pollution and overfishing, people of all identities and background needed to be included. Project officer Jeremy Raguain was lucky to attend as one of 42 young people awarded an Ocean Discovery Fellowship, which covered the costs of travel and accommodation for the duration of the event. The ‘Ocean discoverers’ were invited to present and discuss their projects before the audience, allowing them a chance to connect to one another and to more established programmes. Along with key note addresses and panel discussions, which aimed to capture the core themes of Play, Imagine, Immerse, Create, Explore and Connect All Hands on Deck also had several demos and workshops hosted by the likes of Lego, Disney and the Media Lab itself.

Key note address by Nainoa Thompson © Jon Tadiello

Jeremy particularly enjoyed the key note address by Nainoa Thompson, the President of the Polynesian Voyaging Society, who helped revive the ancient shipbuilding and navigation techniques which had been completely lost in Hawaii and were set to disappear across the Pacific Ocean. His story of restoring culture, identity and pride to take on global issues was a true inspiration. Lego’s prototype of “Underwater Robot Explorers”, built from its bricks, Tupperware, computer fans and of course duct tape were also one thing that caught Jeremy’s attention as they are being designed to be assembled, programmed and piloted by school children to explore the bodies of water nearest

to them. All Hands on Deck also highlighted National Geographic's Open Explorer's Science Exploration Education (S.E.E.) Initiative, which will donate 1,000 remote operated vehicles to projects working on ocean conservation, education and exploration. If you would like to learn more about All Hands on Deck please visit this site https://www.allhandsondeck.community/2018-forum/ for photos, videos and other free resources.

SIF attends UNESCO World Heritage marine sites conference on marine litter

The workshop participants © CWSS/ Joachim Trettin

During November a three-day workshop was organised by the World Heritage Centre's Marine Programme and the Common Wadden Sea Secretariat to discuss the impacts of marine litter in the different marine world heritage sites. The workshop held on the island of Norderney, in Germany, and aimed to strengthen knowledge exchange and share best practices to approach this global problem. SIF attended the workshop to represent Aldabra, and was joined by site managers and marine litter experts from 11 nations including Indonesia, Brazil, and Jamaica. During the workshop it became apparent that the scale of the problem differs hugely at different sites. For instance, in the North Sea well-established recycling technologies exist and are easily accessible, but most site managers in less developed countries face huge challenges with not just collecting the waste, but especially its disposal due to lack of recycling technologies or circular economies.

Dr Fleischer-Dogley presenting the Aldabra Clean-Up Project © CWSS/ Joachim Trettin

By sharing existing management solutions, success stores and best practices, the global network of 49 marine site managers will help to develop solutions between the sites. SIF's CEO, Dr Frauke Fleischer-Dogley was one of the managers present at the workshop that had the opportunity to share a success story. She presented the Aldabra Clean-Up Project, showcasing successful fund-raising and awareness campaigns, showing that they are viable tools even for very remote sites where the waste collection itself is an epic challenge and waste processing is even more difficult.

It was extremely useful to meet with so many experts and learn about already existing and well established monitoring methodologies, which can benefit SIF throughout and especially following the clean-up effort on Aldabra. Recycling technologies and alternative consumer products are also an important part of the solution and were presented during the workshop. The marine litter issue will continue to affect our coasts until there is global consumer behaviour change, combined with a different perception of waste. Instead of being considered useless rubbish, we need to think of waste as a profitable resource. Only if waste is seen globally as a resource will it finally stay out of our oceans.

SIF shares research achievements at scientific conference

SIF science and projects coordinator, Jennifer Appoo presented SIF's research achievements at a national scientific conference held at the Seychelles Hospital. The primary objective of the conference was to bring together researchers from different fields and create a platform through which research information can be exchanged. Various organisations and researchers presented their research work and Jennifer highlighted some of the main scientific achievements and breakthroughs from the two UNESCO world heritage sites. Over the last decade, SIF staff have co-authored around 40 scientific publications and the research work has facilitated science driven management. Among the many achievements and outcomes are the increased understanding and protection of several species found at the two sites and the increased protection status of Aldabra.

The two-day conference was also an opportunity for various organisations and researchers to discuss how to build a stronger culture for research, and the support mechanisms in place to sustain research in Seychelles. The round table discussions covered themes such as education for research opportunities, resources, grants, government expenditures, from research to policy and actions, and building the next generations of researchers. The conference was organised by the Public Health Authority in collaboration with National Institute for Science, Technology and Innovation, Seychelles Fisheries Authority and University of Seychelles. Thank you to the organisers for providing this excellent opportunity to connect and collaborate!

Two SIF staff members graduate from the University of Seychelles

Julio Agricole and Jessica Moumou joined SIF in 2012 and since then both have been involved in several SIF projects, and contributed to the protection of both Aldabra and the Vallée de Mai. In the past six years they have both worked on Aldabra, Assomption, Mahé and Praslin! With substantial conservation work experience already under their belts they embarked on a new adventure: to pursue higher studies. In September 2015, they enrolled at the University of Seychelles for a three-year Bachelor's Degree course in Environmental Sciences.

Jessica and Julio with their classmates at graduation © SIF

This year was the final year of their course and for their final year they both specialized in climate change resilience, culminating in their dissertation projects. Julio's dissertation investigated the perceived importance of the Anse Royale beach to its users, exploring the socio-ecological costs and opportunities associated with beach usage. Jessica researched the factors influencing the population distribution of the Praslin Sooglossid frog, including proximity to water, vegetation cover and invasive species. In November both students graduated from the University of Seychelles with their BSc degrees.

They didn't waste any time after graduation and both are back working with SIF; Julio and Jessica first led three months of final field observations of the ring-necked parakeet eradication (see July and August newsletters at www.sif.sc/downloads). Julio is now the acting site manager in the Vallée de Mai and Jessica is currently working on Aldabra as a field research officer. The knowledge they gained from the degree course will complement their conservation experience and SIF is thrilled to have them back on board.

International Year of the Reef *Coral News*: Coral reef Christmas trees!

There are many wonderful organisms to be found on a coral reef, and the Christmas tree worm is definitely one of these! Living within a calcareous tube inside hard corals, we can only see their beautiful radioles that reveal a wide variety of colours. As filter feeders, the worms use these feather-like tentacles to capture plankton from the water column which is then transported directly into the worm's mouth. The radioles are also used for respiration and to sense slight differences in water movements, alerting the worm of any potential danger and causing it to retract completely into its tube. This one here was photographed recently on Settlement Reef, just outside the Aldabra Research Station, putting our Aldabra divers right into the festive mood! Merry coral Christmas everyone!

Christmas tree worm © Anna Koester

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. Details can be found on 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:

Mahé

- IT and Database Development Officer
- Communications Officer

Aldabra:

- Cook /Gardener
- Field Research Assistant
- Electrician/Mechanic Assistant

Vallée de Mai:

- Visitor Attendant
- Field Worker
- Housekeeper
- Ranger
- Sales Clerk

Signs that the back parrot breeding season is about to start

The black parrot team are still hard at work, monitoring all the potential nesting cavities. They are searching for new cavities and, during November, three new potential cavities were added to the list of monitored cavities. Generally, a potential nest is added to the list when a parrot is observed going in and out of a tree cavity or is frequently found around the cavity. Two of the newly added cavities are in the Vallée de Mai and one at Glacis Noire. This season, a total of 28 cavities are being monitored in the Vallée de Mai, five in the Fond Peper/National Park area and 16 in Fond Ferdinand.

Black parrot observation sessions © SIF

As of the end of November no eggs have yet been found in any of the cavities, but there is a large amount of parrot pre-breeding activity at the moment, including courtship behaviour and mutual feeding as well as swollen cloacas in the females and breeding calls being heard all over the palm forest areas. Any visitors to the Vallée at the moment are sure to hear the melodic breeding calls. It's an exciting time to be in the forest and the black parrot team is sure that they'll be finding eggs soon so watch this space for more news next month!

Conducting nest checks © SIF

Spotlight on the endemic molluscs of the Vallée de Mai

The moist leaf litter-filled bases of the palms endemic to Seychelles make for ideal conditions for molluscs to survive. Although there are relatively few species of molluscs in the Vallée de Mai, a large portion of these are endemic. There are around 85,000 species of marine and terrestrial molluscs in the world, including highly advanced species like octopus, and the most numerous molluscs are the gastropods: slugs and snails.

The moist palm forest is the ideal habitat for several species of mollusc © SIF

The Vallée de Mai is home to four of Seychelles endemic molluscs; three snails and one slug. These are:

- Coco de mer snail (*Stylodonta studeriana*)
- Dancing snail (*Pachnodus niger*)
- Praslin snail (*Pachnodus paslinus*)
- White slug (*Vaginula Seychellensis*)

The coco de mer snail is a large brown to yellowish snail that has a flattened and rounded looking shell with a whorling pattern starting at the centre of its shell. As the name suggests the coco de mer snail is often seen on coco de mer palms, and its occurrence only on Praslin may be due to its close association with the palm that give it its name. The dancing snail is a small snail with a distorted spherical matt black shell. The species is found on both Mahé and Praslin and gets its name from the way it moves its shell when disturbed, side to side in time to the beat of imaginary music! The Praslin snail is a small snail as well, but with a more elongated shell

that varies in colour but is mostly pale brown, bearing a darker ring on each whorl. The white slug is a large, completely white slug with a flattish broad body and a rounded end with two large extending eye-stalks.

Praslin snail in the Vallée de Mai © SIF

All four of these species are threatened by the invasive yellow crazy ant. SIF has been monitoring yellow crazy ants since 2009 and observations have shown that molluscs are the most vulnerable group of the Vallée de Mai's tree-dwelling animals to crazy ant invasion. SIF is monitoring and attempting to control the crazy ants at the site to mitigate this threat.

Vallée de Mai senior ranger attends training in Madagascar

In April Shanone Adeline, the Vallée de Mai invasive species technical officer had the opportunity to attend a course in Madagascar titled "from Mauritius to Madagascar: Building regional capacity for biodiversity conservation and monitoring" (See April newsletter). In November Terance Payet, the Vallée de Mai senior ranger was able to attend the second session of the course from the 5th to 23rd of November. Terance was funded by the Durrell Academy (Mauritius) in collaboration with the Vahatra Association Madagascar.

At the start of the course the participants spent a week in Antananarivo for lectures, learning about various conservation projects in different regions of protected areas Madagascar. The 12 participants, Terance from Seychelles and the rest from Madagascar had the chance to spend two weeks camping in Ambohitantely Reserve along with five lecturers from Vahatra. The reserve is situated north-west of the capital Antananarivo.

Making friends with the wildlife! © SIF

Participants were divided into three groups which were rotated every two days. The groups were taught about different monitoring methods used for different groups of species. For herpetofauna, the study of reptiles and amphibians, pitfall trapping and day and night transects were used to count and identify individuals. Bird monitoring was done using mist-netting, audio and visual counts, and observation. He also learned about plant identification and vegetation monitoring or forest inventory using quadrats and transects.

The course participants © SIF

Small mammals were monitored by using two types of traps which is Sherman and national trap, and participants learnt about flea and tick sampling. Entomological monitoring was done by sweeping and beating of vegetation, aquatic trapping, sifting, lights and flight intercept techniques.

Terance found the course to be beneficial, he feels that he has developed certain skills and gained new knowledge which he will share with the team in the Vallée de Mai. He particularly enjoyed the training on different monitoring methods for vegetation and herpetofauna, and was fascinated with the entomology session which is new for him and will be of relevance to set up invertebrate monitoring at the Vallée de Mai.

School visits to the Vallée de Mai

Beau Vallon school exploring the forest © SIF

November was a good month for school visits to the Vallée de Mai, a total of four schools visited the palm forest. Seychelles' UNESCO sites are part of the school curriculum, and learning about the Vallée de Mai wouldn't be complete without a visit!

The month started off with a visit by the Independent School on the 1st November, with three P4 classes from Beau Vallon Primary School and a group from Baie Lazare Primary School hot on their heels on the 2nd November.

Learning about the coco de mer through touch © SIF

One of our favourite visits was from the School for the Exceptional Child on Mahé on the 29th November. The group didn't let their intellectual and physical disabilities get in the way of enjoying the forest, and it was a wonderful experience for both visitors and staff. It was particularly special to introduce blind children to the coco de mer. They were able to feel the shape, texture and weight of the nut, smell the fragrant flowers of the catkin, and hear the enormous leaves brushing together in the canopy. It was a wonderful reminder to us that there are many ways to enjoy the Vallée de Mai.

aldabra atoll

Aldabra Clean-Up Project still gaining momentum

November started off with more encouraging news for the Aldabra Clean-Up Project, with the Mauritian Commercial Bank (MCB) Group deciding to donate a further SCR 150,000 to the Aldabra Clean-Up Project. This follows the previous donation by MCB Seychelles of SCR 100,000, bringing the total MCB contribution to SCR 250,000 and making them the first Gold Sponsor in Seychelles. This means that the total amount raised for the project in Seychelles is SCR 400,000! We look forward to several activities to take place with the Group in Seychelles and Mauritius in early 2019, details to follow! A huge thank you to MCB for your continued support of SIF's efforts and readiness to go beyond financial support.

MCB Managing Director Bernard Jackson handed over a cheque to SIF CEO Dr Frauke Fleischer-Dogley © SIF

November also saw SIF's project officer Jeremy Raguain visit Oxford for a week through the Africa Oxford Travel Grant, which aims to connect Africa's researchers to the facilities and resources of one of the world's leading universities. Jeremy was able to meet and plan with the Oxford team as well as present to and meet relevant and interested researchers. Jeremy also met up with Dr Lindsay Turnbull, a SIF Board member and key driver of the Aldabra Clean-Up Project to discuss several media opportunities and to engage with oceanographers based at Oxford. Meetings on the logistics of the expedition were also held and it was extremely useful to meet the Oxford volunteers in person to discuss plans and update them on the latest developments from Aldabra and Seychelles. In his free time Jeremy visited the Oxford Museum of Natural History which among many artefacts have Aldabra giant tortoise and dodo specimens!

Jeremy presenting the Aldabra Clean-Up Project in Oxford © SIF

To end the month, the SIF Head Office staff teamed up with the Seychellois Aldabra Clean-Up Project volunteers to participate in the annual raft race organised by the Seychelles National Parks Authority and Global Vision International. The race held in the Baie Ternay Marine Park on November 24th had many aims, including raising funds for the President's Village orphanage and raising awareness about the issue of marine debris. SIF had two teams

The SIF and Aldabra Clean-Up Project raft teams © SIF

mixed between SIF staff and the volunteers. The two rafts were made out of buoys, white drums, empty bottles and wood and were named 'Silvertip' and 'Bumboat', after Aldabra's boats. The goal of the race was to paddle all the way to the outside of the bay, 800m away and back to the beach. The event attracted a large number of participants and a total of 19 rafts took part. The two SIF teams completed the race in 45 and 61 minutes. The activity was a great team building opportunity between SIF staff and Aldabra Clean-Up Project volunteers. The raft race is an annual event that has been growing year on year and this time it was held as part of the Seychelles Ocean Festival celebrations organised by the Seychelles Tourism Board. The festival is aimed at promoting marine-based tourism in Seychelles and also to sensitise the local population to the role and importance of the marine world to the Seychelles environment.

Biosecurity project officially ends, but biosecurity measures continue to strengthen!

Invasive alien species are one of the most significant threats to island ecosystems. Over the past 18 months, the SIF team has been increasing biosecurity measures to prevent future accidental introductions of invasive species to Aldabra. Disastrous examples from around the world show that even introducing something as small as an invasive ant can have catastrophic effects on island ecosystems resulting in the extinction of many endemic species.

The SIF and Aldabra Clean-Up Project raft teams © SIF

Implemented by the Indian Ocean Commission (COI) and funded by the European Commission, the biosecurity project aimed to "*Institutionalise and implement biosecurity measures to ensure sustainable conservation management of biodiversity on Aldabra*". The project includes a combination of procedural and practical elements. At the SIF Head Office on Mahé a temporary biosecurity store was setup. This will be used until Aldabra House is operational, which will host specifically designed biosecurity stores. This store is used to check all supplies properly prior to departure and to pack them into newly purchased pest-proof containers to send them to Aldabra. The containers are sturdy, air- and water-tight aluminium boxes and were a major investment under the project. These containers will help to reduce one of the biggest risks in our supply chain by eliminating the use of cardboard boxes for transport, always a very likely place for insects and ants to travel unnoticed.

Another key part of the project is the construction of a secure biosecurity building on Aldabra. Once completed, this building will be used to check all supplies arriving on Aldabra to ensure that no invasive stowaways can reach the atoll. Although everything is checked on Mahé before sending, the check on Aldabra is an essential backup in the event that something is missed on Mahé

or able to stowaway during transit. Although the building was started early this year, it was delayed due to transportation and recruitment challenges, however the team is hard at work and the building should be completed soon. The project also entails reviewing and strengthening Aldabra's biosecurity plan, including creating guidelines for relevant invasive flora and fauna, and incursion response procedures to train all staff for the prevention potential eradication of invasive species.

Searching the contents of the biosecurity boxes © SIF

Despite the project officially coming to an end this month, as all of those in conservation know, biosecurity is a never-ending job and tasks are ongoing to continually strengthen Aldabra's biosecurity. SIF is determined to achieve the best biosecurity practices possible to prevent any harmful species introduction to Aldabra.

Aldabra fody goes from 'Least Concern' to 'Endangered, but its good news!

The Aldabra fody (*Foudia aldabrana*) was previously considered to be a subspecies of the much more widely distributed red-headed fody (*Foudia eminentissima*) of Madagascar. As reported in SIF's February 2018 newsletter, genetic research in 2015 by Dr Janske van de Crommenacker, resulted in the species being re-classified as a distinct species, now reflected in the scientific literature, and on the IUCN Red List. However, until this month the species was still designated the threat status of 'Least Concern' on the IUCN Red List, which was a reflection of the much wider distribution of the red-headed fody.

Female Aldabra fody © Dennis Hansen

As a consequence of the research described above, BirdLife International set up a Globally Threatened Birds Forum, proposing online that the Aldabra fody be uplisted on the IUCN Red List, to reflect its species status, tiny range and vulnerability, and invited public comments and participation. The forum was contributed to by SIF and the decision was made this month by IUCN to uplist the Aldabra fody to 'Endangered'. Importantly, in this case, the uplisting does not reflect any increased threat to the species, rather that it has been accurately assessed for the first time. The assessment acknowledges

Male Aldabra fody © Dennis Hansen

that the population might be increasing and that the threat from the Madagascar fody has been removed, but given the other threats facing this species especially it limited distribution, it is listed as Endangered as a precaution.

The Red List uplisting in this case is good news for the Aldabra fody as it will emphasise the importance of appropriate conservation management of the species and aid in the direction and prioritisation of resources.

The SIF Newsletter can be downloaded at www.sif.sc/downloads, or subscribe to the mailing list at www.sif.sc

Articles contributed by: *Jennifer Appoo, Irma Dubois, Anna Koester, Emmanuel Morel, Terance Payet, Christina Quanz, Jessica Moumou, Jeremy Raguain, and Lynsey Rimbault.* **Editing by***: Jennifer Appoo, Nancy Bunbury and Lynsey Rimbault*