Cerf Island Conservation Program

Newsletter

March 2018~Issue 4

Cerf Island Conservation Program is a community based organization driven to enhance visitor experience while preserving its marine biodiversity. As we strive to raise awareness about the fragile marine biodiversity and the importance of its conservation, we continue to interact with the visitors of Cerf Island as well as press on with coral reef restoration. This newsletter presents the work carried out from Nov '17 to Feb '18.

A Brief Update

- 4 volunteers from universities abroad joined MCSS on the Cerf Island Project
- 161 visitors have joined us in discovering the house reefs here at Cerf Island as we have carried out 45 guided snorkels. From novice to expert, we love being able to share our reef critters from tiny nudibranchs to Hawksbill and Green turtles.
- We've continued to maintain our nurseries with toothbrushes and have enjoyed seeing the fauna which visit and inhabit some of our colonies
- With the SE monsoon in full swing this past quarter, reef monitoring and snorkeling had been down to a minimum.
- This quarter we had Victoria Accueil visit us once more with brand new faces!
- We experienced another Lemon Shark pupping season with a very special guest!

This quarter's volunteers involved a Half Dutch Lonne, a British Emma, an American Arianna, and a Belgian Sebastien. All volunteers were introduced to the marine ecosystem and the world of eco-tourism where we use the environment as a classroom to educate and raise awareness to the public.

Reef Restoration

Our coral nurseries have braved the rough SE monsoon conditions and our coral fragments continue to grow ever so beautifully. Our volunteers and project leader have been taking great care of our nurseries four times a week having only cancelled the monitoring a handful of times due to extreme weather.

Figure 1 - Toothbrushes at the ready as volunteer Arianna braves the "chilly" rains with project leader Savi to ensure nurseries receive their weekly cleaning.

Figure 2 - We've enjoyed seeing the different critters which frequent our nurseries as well as some that have decided to move in! Friendly triple tail wrasse (Left) and a furry coral crab (Right)

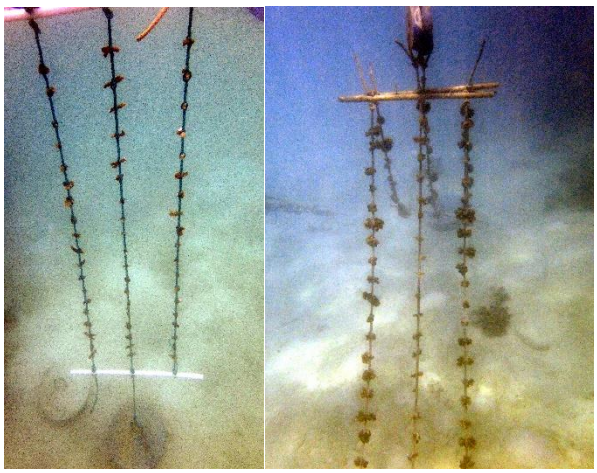

Figure 3 – It's been 6 months since we put in nurseries at our Fairy Tern site and we have noticed quite the growth on this particular set of P. verrucosa and Acropora sp. (Left - September 2017; Right - February 2018)

During the last monsoon transition period, we were able to carry out the coral recruitment studies in which we lay 1m^2 PVC quadrats along the various sites to count the different genera of scleractinian (hard) corals which have recently settled onto the reefs.

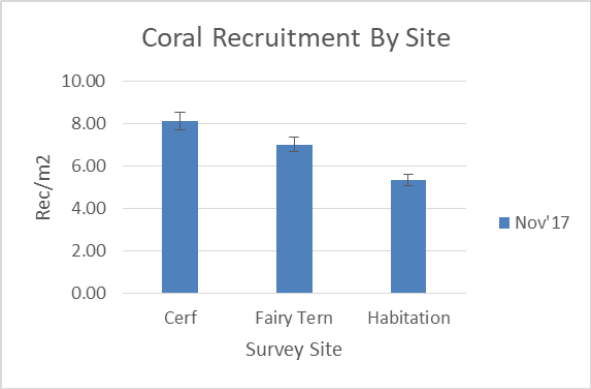

Figure 4- Twelve coral genera from 8 families were found among the sites with the highest density (8.13 per m^2) found at the Cerf Resort Reef (CRR). Fairy Tern Reef (FTR) had the 2nd highest density of 7 per m^2 and Habitation Reef (HR) with the lowest at 5.33 per m^2

Our latest benthic surveys (fig 5) allow us to compliment and understand the coral recruitment results. With CRR having the highest percentage of live coral cover and the least amount of rubble, there are ample adult colonies for reproduction and ideal hard substrates for settlement. Though Fairy Tern does not have the highest live coral cover, it does offer a larger area of hard substrate suitable for coral recruitment. The Habitation reef was found to have relatively high coral cover however, this site has the most rubble beds and least amount of hard substrate which have been studied to be some of many limiting factors in coral recruitment.

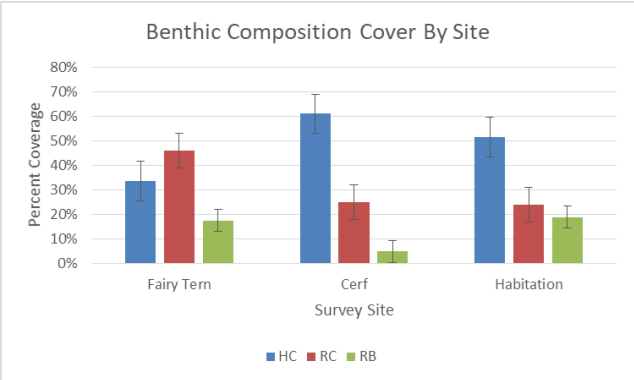

Figure 5 – Benthic composition by site; HC-Hard Coral, RC-Rock, RB-Rubble.

SGP The GEF Small Grants Programme

With the success of Marine Conservation Society Seychelles' demonstration projects and small scale nurseries, MCSS has been granted a GEF Small Grants Programme which will contribute to the rehabilitation of coral reefs. This capacity development project will allow us to increase areas of live coral by 500m^2 at each site (here at Cerf Island and Anse Forbans). The larger scale nurseries will host 5,000 fragments, be placed within St. Anne's Marine National Park, and are expected to be implemented by the end of April 2018.

Community Outreach

In December, we welcomed Victoria Accueil for the 2nd time. Organizer Veronique was keen to return to Cerf Island as she wrestled up a motivated team to help beach clean as well as partake in the guided snorkels. The club contained members of a variety of ages and it was a delight to see such a turnout especially for a Saturday morning. Welcomed into the lobby, the group was then presented with an overlook into our project which explains our aims, history, and accomplishments. An introduction to

reef ecology and the reasons why we carry out these passive and active reef restoration measures was also presented.

After the presentation, the group separated into 2; one for beach cleaning and the other for a guided snorkel. Though CICP carries out daily beach cleans we are not able to reach all of the beaches of Cerf. For this reason, SNPA was kind enough to aid with boat transfers to the grotto which is quite a popular picnic spot and is often the worst beach for rubbish. SNPA picked up group A, and headed off to the grotto with bags and gloves in hand.

Figure 6 – The group led by SNPA and Veronique who braved the warm sun as they clean the small grotto beach

It's a shame that this kind of rubbish can be found on the beaches as it is often left behind by the people who brought the items. Carelessness and pollution is detrimental to our wildlife and aesthetic values which Seychelles as a country hold dear. If you bring it, you can bin it!

Figure 7 – Eight full bags were collected including but not limited to: aluminium foils, nappies, bottles, cutlery, napkins, cigarette butts and alcohol bottles.

Once the beach cleaning group returned, they celebrated with a quick rinse and changed into their snorkel gear ready for their hard earned snorkel. It was a pleasure to have this enthusiastic team and we hope to see new members explore our reefs soon!

Figure 8 - The entire group; freshly snorkeled with the waterproof ID sheets as they explored degraded reef, recovering reef as well as our coral nurseries and artificial reefs.

Turtle Encounters

Turtle encounters are recorded for both guided snorkels during the week and volunteer/staff snorkels on the weekend. We have had 9 turtle encounters on our reefs with a very familiar face reappearing throughout the years.

Out of the nine encounters which we were able to photograph and run through the database, two stand out as some of the best we have had. On January 6th and February 2nd of 2018 a turtle was spotted and recorded to be slowly swimming, going to the surface for some breaths, and foraging amongst the reef.

Figure 9 – Terry the turtle just before munching on some Physogyra Lichtensteini; he's always eating!

Our snorkelers respected the turtle's space and watched from a distance which allowed us to "hang out" with this turtle for quite a while until we carried on with the snorkel. Upon running him (sexed by presence of tail) through our database using the Interactive Individual Identification System (I3S), we recognized Mr. Cerf.2016.008; or Terry as named by one of our clients. Recognizing the location of the reef, we were able to plot the various GPS coordinates of the initial encounter locations using G.I.S.

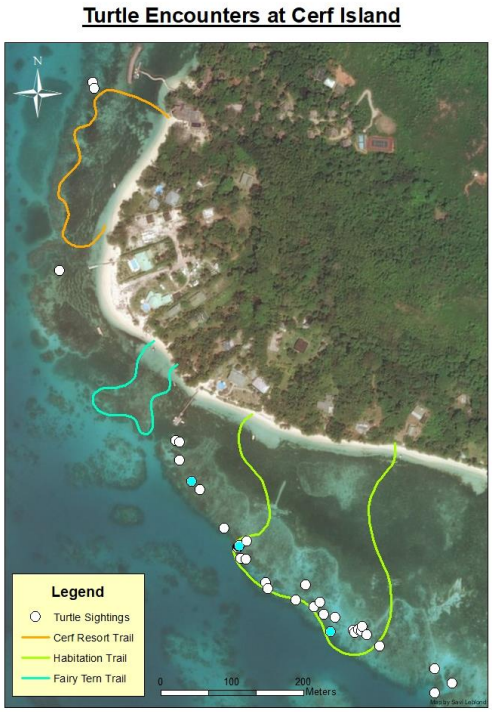

Figure 10 – A map with white dots representing all of the turtle encounters we have had here on Cerf Island since Oct. 2015. The blue spots are Terry as we've encountered him in Aug and Oct '16, and Jan/Feb '18. It's possible he was encountered in 2017 but no camera was available that day. One encounter (blue spot) is missing as his location was not recorded.

Cerf Island was quite lucky last year as we were visited by a Hawksbill who successful laid her eggs! Cerf is not a key nesting site as many beaches have eroded, the beach/reef anthropogenic disturbance is high and poaching is a problem in the marine park (not only just for turtles but also baby lemon sharks, rays, and fishtraps)

Figure 11 – On January 23rd, 2017, these Hawksbill tracks were noticed and we must have just missed her by an hour as we were in the office. Tracks (left), egg clutch found (right).

Needless to say the resident community was very excited about this nest as a hatching event is not very common here and in two months' time we would have hatchlings at our doorstep! We avidly checked the nest area in order to witness the explosion event but sadly did not see any tracks. 24 hours after the hatching date, we returned to the nest to carry out an egg clutch survival survey. We felt a wee bit of movement so the digging was halted, the sand put back and we rescheduled the survey. We were hoping this movement was a wave of hatchlings who were waiting to emerge at a cooler time rather than crabs rummaging around the nest. When we were able to carry out the survey, 150 eggs had been counted as hatched, a dozen eggs had undeveloped embryos, and one hatchling was the victim of dehydration and/or fatigue as it was found intact yet lifeless in the nest. Good luck to those who made it out, you have one heck of a journey ahead of you.

Figure 12 – Arianna sitting by the 150 hatched eggs as we complete the nest excavation (Left). Dead Hawksbill hatchling (right). All items were put back into the nest upon completion.

Animal Highlights

- **Fish –** Lemon Sharks (Negaprion acutidens) can grow up to 3m and it is not often the case we get to witness the lifecycle of a shark at such a young age. The St. Anne's Marine National Park plays hosts to one of the largest areas of Seagrass beds in the granitic islands which are a famous habitat for serving as a nurseries. The shallow beach coves and beds offer protection to juvenile lemon sharks which get pupped in the nights beginning in October. All through late March, visitors and residents have the chance to see these elegant new swimmers as they lap around the jetties and shallow coves often under schools of tiny mackerel. It's like mini National Geographic as these mackerel are made into clusters (bait balls) by the herons, trevallies and lemon sharks as they occasionally dive into the school causing quite the splash in the attempt to catch a bite to eat. These sharks can be found in mangroves on other islands.

Figure 13 – Two juvenile lemon sharks which can be encountered in the shallow sand and seagrass beds whilst on a daily stroll here on Cerf Island.

Big News!

I, Savi Leblond, have now been the project leader of this community based organization since October 2015 and have been able to share my coral passion with nearly 30 students both from abroad universities and local schools. With the amazing support I have had throughout the years, I have been able to build this project from the ground up and watch it grow in terms of partnerships, reef restoration, community outreach, terrestrial and marine biodiversity awareness, recycling practices and much more. However, my role here has come to an end as I have resigned. I pass the torch over to my successor Mr. Leo Barret who will have a 4 week handover period with me and begins his new role as CICP project leader May 1st. It has been a pleasure to work my dream job and I wish all the best for the partners and the project. Thank you for all you have done.

Acknowledgments

A giant thank you to:

- Our CICP partners who continue to support us financially and In-kind which allow us to carry out these studies, restore the reefs, connect with the community and increase our outreach.
  - Marine Conservation Society Seychelles
  - Cerf Island Resort
  - L'Habitation Hotel
  - Fairy Tern Chalets
  - Tropical Sanctuary
  - Seyvillas
  - Seychelles National Parks Authority.
- Our volunteers/interns/students for all of their hard work, dedication, enthusiasm and effort which allow this project to continually progress