

Southern Leyte Coral Reef Conservation Project (LRCP)

Monthly Project Update

February 2019

Location: Napantao Dive Resort, Napantao, San Francisco, Southern Leyte

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LRCP Project Aim

The Southern Leyte Coral Reef Conservation Project (LRCP) is a collaborative project to protect the coral reefs of Sogod Bay, providing training and conservation education opportunities for local Filipinos, as part of an integrated programme to develop local capacity and ensure the long-term protection and sustainable use of marine resources throughout the region. Coral Cay Conservation (CCC) is working at the invitation of and in partnership with the Provincial Government of Southern Leyte (PGSL). CCC provides the resources to help sustain livelihoods and alleviate poverty through the protection, restoration and management of coral reefs and tropical forests.

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Latest News

Hello to Our New Project Scientist, Charlotte (known as Charlie)

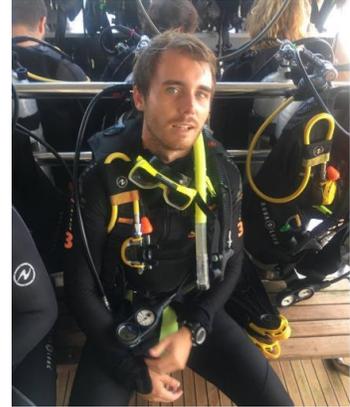
Having grown up on a small island in North Wales, Charlie has always had a passion for the ocean and an intrinsic drive for conservation. Charlie completed her BSc in Marine Biology and Zoology. From this, she gained more determination for conservation efforts so conducted an MSc in Marine Environmental Protection. Due to her interest in tropical ecosystems, Charlie conducted MSc research in the Cayman Islands where she investigated the resource use and 'views and values' of local stakeholders in the marine protected areas. This work was done in conjunction with the Department of Environment in support of their adaptive management approach.



Charlie believes that for successful scientific conservation, there needs to be integration of local livelihoods supported with reliable scientific data collection. CCC is therefore, a perfect platform to encourage respectful use of valuable marine ecosystems and securing conservation for the future.

Hello to Our New Science Officer, Stuart (known as Stu)

Hailing from Scotland and growing up outside New York, Stuart didn't get a chance to discover coral reefs until his undergraduate degree in Australia. Since then, his passion for marine life has only grown. Stuart completed his degree in Ecology from the University of Queensland where he worked hands-on with multiple research projects being conducted along the Great Barrier Reef. In his off time, he has participated in wildlife volunteer programs in South Africa, Sri Lanka, and Australia. He later went on to complete his Divemaster in Thailand and worked as a marine research intern in Tanzania and Greece.



Charlie and Stu will be the new science team so have started their 1-month handover. Hopefully, they can pick up what Manon (PS) and Jordan (SO) have been doing and keep up the great work for the next 6 months.

Story of the Month

A Day at the Waterfalls!

On the 23rd February, for our Sunday day-off we decided to go for a little adventure to Taglinao falls.

The day didn't start quite as we planned, as we ended up going to a site that would require 6 hours of hiking to waterfalls. Seen as most of us were only wearing flip flops we decided against it and went to Taglinao instead for a more leisurely 1 hour hike - it was a Sunday after all.

To get there, our guide led us through coconut groves, across streams and up a steep muddy hill before descending into a private paradise. With only a few little slips here and there along the way we finally arrived at the beautiful waterfall.



Taglinao Falls and everyone scrambling up onto a ledge: Photo by Roslyn King (volunteer)

Everyone jumped in straight away to cool off after our hike. We were soon joined by some locals who showed off their climbing skills and nerves of steel by jumping off the top of the waterfall! After splashing about, climbing under the falls and jumping into the pool, we all enjoyed some snacks in a little lagoon.



A beautiful scene we enjoyed all to ourselves: Photo by Roslyn King (volunteer)

On the walk back, we were treated to some fresh coconuts that our guide harvested from a nearby tree. Leaving base to try something new is always exciting but enjoying it with your friends and laughing all the way makes it all the better.

Educational and Community Projects

Recommendation Presentation at Pandan.

On the 20th of February, outgoing PS Manon and incoming PS Charlie, along with Sir Armando Gaviola of PENRMO and Ma'am Benita Dipay (the fisheries technician for Liloan), visited the Barangay of Pandan in Liloan to deliver a presentation to recommend an MPA in the Barangay's waters. The event started off with Manon giving a talk summarising who CCC are, what we do, and our aims in helping

PENRMO achieve their various goals in regard to the protection of Municipal waters within Southern Leyte.

The talk then moved onto the dissemination of the results from CCC's survey of Pandan's proposed MPA (the water adjacent to the Barangay) which was carried out in late 2016. The results showed that, although in a position to support a more diverse community, the area of water which was up for protection would take a long time to recover, as there were very few fish, and lots of algal growth. This was expected to be due to the agricultural runoff from the nearby river, as there are lots of farms upstream. The large amount of rocky substrate means, if properly managed, the MPA would have the potential for new coral recruits to settle and in turn bring in more fish. For these reasons, as well as aiding in the creation of a network of protected areas on the east coast of the Liloan municipality, CCC recommended an MPA be established.



The Pandan community meeting and attendees for the recommendation presentation. Photo Charlie Heney (PS)

Ma'am Benita had been taking notes for the duration of the talk, and afterwards stepped up and gave a brief summary in Visayan of the results and recommendations to the community. Sir Armando then talked a bit about the intricacies of how MPAs work, including explaining in more detail the 'spill-over' effect, and the reasons why protection increases fish stocks both inside and outside of the MPA. A discussion started between members of the community and the response seemed positive. Luckily as the Barangay Assembly had been organised to coincide with the MPA recommendation, one member of each household in the Barangay was present to give their opinion.



Manon (PS) giving the recommendation presentation to the barangay. Photo Charlie Heney (PS)

The overall consensus was that an MPA should be put in place! Only a few members of the Barangay fished for a living, and they explained that members

of neighbouring Barangay's communities made up the majority of people fishing within their waters, so having regulations in place to prevent this from occurring would be in their best interests. The ordinance will be drafted by Arman of PENRMO, and we just have to wait and see whether the Barangay passes it at their next assembly. Fingers crossed we will find out soon!

Community Day at Manglit

Our first survey site of 2019, Manglit (municipality: Pintuyan) was selected to be assessed through talks with PENRMO and our team here in San Francisco. Approved in 1997, Barangay Manglit Fish Sanctuary covers over 15 hectares of the reef just to the north of the Barangay. Since approval, however, it hasn't undergone any biophysical assessments. MEAT (MPA management effectiveness tools) surveys have been carried out periodically, and so Coral Cay hopes to combine this social data with the biophysical data we collect in order to advise on best management practices when moving forward.

On Saturday 23rd February, CCC returned to Manglit, Pintuyan to conduct a community day and it was all hands-on deck! This time our team went to Manglit to share the results of our most recent MPA assessment. We received a warm welcome and while Manon (PS) and Charlie (PS) set up the PowerPoint presentation there was a bit of time to play volley ball and basketball with the local kids.

The kids were all ears during Manon's (PS) presentation about the MPA survey. They were especially lively during the quiz which focused on marine plastic, but that could also be because the winner got candy! The presentation moved from talking about further recommendations for the MPA, to solutions and then to one of the greatest problems that plagues the Philippines; plastic. The Philippines is currently the 3rd largest ocean plastic polluters, and the reefs are paying the price. Manon talked about the benefits of EcoBricking.



Manon (PS) presenting a quiz on marine plastic : Photo Jordan Williams (SO)

EcoBricking is the opportunity to repurpose used plastic and turn them into building materials. CCC with the help of local communities has been collecting plastic bottles and then packing

them full of used, un-recyclable plastic to make them into solid building bricks.

The kids showed off their EcoBricking skills after the talk. It quickly turned into an intense competition to see which group could stuff a coke bottle the fastest. They swarmed the bottles and filled three to the brim in 30 minutes, when it usually takes on average about one day to fill a bottle.

We were pleased to hear that Manglit already participated in EcoBricking and regularly take EcoBricks to Pintuyan where they can exchange 2 bricks for 1 kg of rice.

Then when it was time to go we were waved off by all the kids. All the volunteers and staff had a great day and headed back to base with big smiles!



Stuart (SO) helping make EcoBricks with the children :
Photo Jordan Williams (SO)



Group photo of the CCC team and Manglit residents : Photo Matthew Bigland (SI)

Survey Monthly Update

Survey background: Since January 2013, survey efforts have been focused on assessing potential and existing Marine Protected Areas in Sogod Bay to provide appropriate management recommendations. To do this CCC uses an expanded version of the Reef Check protocol, which has been customised to perfectly fit our work in Sogod Bay. Prior to this a baseline appraisal of marine resources in Sogod Bay was carried out. In 2018, CCC will be using a revised approach to assess the effectiveness of CCC's previous efforts in establishing Marine Protected Area's (MPAs) with the goal of understanding the barriers associated to their establishment in the Southern Leyte Province. If you would like more information about our surveying please contact our Project Scientist, Manon Broadribb at lrcp@coralcay.org.

Surveying at Anislagon Begins!

From 2018, we have introduced a new survey methodology to assess the effectiveness of implemented MPAs. To do this, we have adopted a BACI (Before-After-Control-Impact) approach. We have 6 sites, 3 of which have an established MPA (Impact Sites) and 3 of which do not have an MPA but meet the criteria for inclusion (control sites). By re-visiting these sites and surveying their reefs, we can compare the data for the site with protection and those without to understand the benefits of MPA implementation in Sogod Bay.

Anislagon, San Francisco is the first survey site under this design and is considered a control site (no MPA was created, despite recommendations in 2016). We have GPS co-ordinates of the surveyed transects visited by CCC in 2016, so we have begun re-visiting those co-ordinates to comparatively re-sample the area.

Currently, we have surveyed three 6 m transects and three 12 m transects, with various substrates and invertebrate species detected. At present, it seems that the fish population is low which could suggest that the barangay is a fishing community, but assumptions can only be appropriately made once surveying is complete. We expect to finish this site in the first week of March and the data can be saved for comparison once all surveying at the BACI sites are complete.

This is an exciting survey to begin, as the results provide CCC with a unique opportunity to utilise baseline data that aims to provide local stakeholders with recommendations for MPA establishment, to provide resource managers critical data on the performance of their MPAs.

Scientific reports from all of CCC's sites around the world are available on our website at <http://www.coralcay.org/science-research/scientific-reports>

Marine Creature of the Month



Photo: iucnredlist.com

CCC's creature of the month goes to the **Prickly Redfish Sea Cucumber** (*Thelenota ananas*)! They are rarely seen on our reefs, but one was spotted last week for the first time in nearly a year! It was spotted just outside of the survey team's transect on the sandy floor, but lucky everyone on the team got a chance to see their first Prickly Redfish. They have long thick cylindrical bodies with a mouth at the front (photo above) and anus at the rear. The one seen by the survey team was a fully mature adult at the diameter of 10cm and length of 70cm.

Sea cucumbers get their name, in general, for their similar shape to the cucumber plant, but this behemoth of an echinoderm (an animal with 5 segments) is often called the pineapple sea cucumber for its many soft pointy papillae. While they may be in the same phylum as sea stars, their skeletal plates have been reduced to ossicles (calcareous elements embedded into the body wall for rigidity and protection) to allow for flexible movement while it travels. All sea cucumbers have an important role in helping to recycle reefs nutrients by breaking down detritus (dead organic matter) on the sea floor.

Here, at CCC, we have three target sea cucumbers the Prickly Redfish, Pinkfish (*Holothuria edulis*) and Greenfish (*Stichopus chloronotus*) none of which have been recorded on a survey in the past year. They are listed as a target species by both Reef Check and CCC for their common trait of being a delicacy in many countries. While not all 1,717 species of sea cucumber (most of which are found in the Asia Pacific) are edible the commercial exploitation of Prickly Redfish has led them to not only being rarely seen here, but also grant them endangered status by the IUCN.

Learn More!

To learn more about the CCC Philippines project, to join the expedition, or to find out about local marine scholarships, visit www.coralcay.org