
Southern Leyte Coral Reef Conservation Project (LRCP)



Monthly Project Update

January 2018

Location: Napantao Dive Resort, Barangay 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-focused education to 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

CCC welcomes our new SCUBA Instructor (SI), Rafael Manrique!



Rafael grew up fascinated with the ocean and all its mysteries. Learning to dive on the island of Roatan at the age of 8, he found his passion and never looked back. After graduating with a degree in Marine Biology and Eco-businesses in Peru, Rafael became a PADI Master SCUBA Diver Trainer. He has worked in conservation programmes with kids from all over the planet, and is a firm believer that a few passionate people can make a difference in this world. He finds no greater joy than giving people the knowledge and resources to do so. Welcome to the CCC team Rafael!



Stories of the Month

Skills Development Programme 2018

January has kicked 2018's first Skills Development Programme (SDP), as we welcomed both international volunteers and local scholars onto site. The SDP is Coral Cay Conservation's Award-Winning marine conservation programme, which trains volunteers from SCUBA novices to survey professionals. This is achieved through a series of introductory lectures on

marine conservation and coral reef ecosystem dynamics, followed by intense theoretical and practical examinations on the identification of reef substrate, invertebrates and fishes. CCC's volunteers and scholars make up the majority of the manpower required for the data collection of current and proposed Marine Protected Area's (MPA). The SDP provides all the necessary scientific and buoyancy training to carry out these surveys anywhere in the world! We thank Ceri and Kenneth for being a part of the programme and our survey efforts, and hope you can put these newfound skills to future use!

Pintuyan Whale Shark Expedition

The 26th of January was a very exciting day for both CCC staff and volunteers, as it was a first time whale shark encounter for most! It took a short trip to Pintuyan to swim with the biggest fish in the sea, reaching a size of up to 12m. High

productivity from upwelling systems around Pintuyan attract whale sharks into Sogod Bay. The group went out with the KASAKA tour company (in collaboration with LaMaVe), who allow a maximum of three people per boat, and strictly adhere to whale shark encounter guidelines. Whale shark encounter guidelines include:

- 5 metre distance from swimmer to whale shark
- Guide required
- No SCUBA Diving
- No flash photography
- No touching of the whale shark
- Do not feed the whale shark

During CCC's encounter, photographs were taken of the skin patterning behind the gills on the left-hand side of each shark, and notes were taken on any scars which might



Skills Development Programme is underway from fish pointy's to sizing practice, to learning all 46 butterflyfish species!

- Photo's by Chelsea Waters (PS).



One of the three whale sharks that CCC staff and volunteers encountered in Pinutyan.

- Photo by Rafael Manrique (SI)

distinguish between individual animals. Each whale shark has an individual fingerprint: the pattern of spots on the left or right sides of the body. By submitting these photographs to WILDBOOK (whaleshark.org), a photo-identification library of individually catalogued whale sharks from around the world, their "fingerprint" can be matched within their database to identify existing or new whale sharks in the area. This information that is submitted to WILDBOOK will be used in mark-recapture studies to help with the global conservation of this threatened species.

COTS Removal Dive

27th of January saw Napantao House Reef's first Crown of Thorns (CoTS) removal dive for the year! Between both CCC staff and volunteers, a total of 32 CoTS were removed within 50 minutes. The need for a CoTS removal was highlighted during the survey practice component of CCC's Skills Development Programme, with more than 8 CoTS recorded within a 100m transect! These CoTS control guidelines enforced by CCC have been adapted from the Australian Government Great Barrier Reef

Marine Park Authority (GBRMPA) (2014). Of the 32 CoTS removed, most were found actively feeding on either *Acropora* branching or tabulate corals, with an average size of 6 – 15cm. The Skills Development Programme survey practice will allow consistent monitoring of CoTS within Napantao House Reef, to ensure CoTS numbers are controlled post-habagat.

Meet Our Volunteer – Ceri!

Ceri has travelled all the way from Brighton (United Kingdom) to participate in CCC's Skills Development Programme. With a Bachelor of Biomedical Science under her belt, the world of diving and marine biology

was far removed from her early career as a Microbiologist. With the decision to make an early career change, Ceri tested the waters of life as a conservationist by volunteering for CCC. Since completing her SDP, Ceri will be returning to England to pursue a Masters Degree in Conservation.

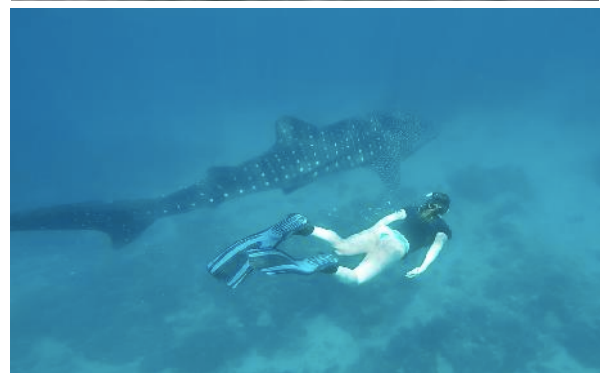
"I had a great experience! Learning so much about life on the reef and its conservation has helped focus me on the career pathway I wish to take, and which Master's

course to apply for. A huge thankyou to everyone working on site for being so friendly, helpful, and knowledgeable about the reef! "



Chelsea Waters (PS) and Maisy Fuller (SO) correctly and safely removing CoTS from the reef.

- Photo by Ceri Webster (Volunteer).



Top: Ceri Webster (Volunteer) geared up and ready for an SDP dive!

Bottom: Ceri Webster on her first ever whale shark encounter in Pintuyan.

- Photo's by Chelsea Waters (PS).

Education and Community Projects

MPA Buoy Boundary Deployment

January 23rd was an exciting day for Liloan, as both Liloan's local fisherman and CCC's Community Liason Officer (CLO), Jesse Tinapay, came together to finish the installation of Barangay Tabugon's MPA boundary markers. Established in 1993, Tabugon is the longest established MPA in Sogod Bay. The deployment of MPA boundary markers can now act as a distinguishable boundary surrounding Tabugon's "No-Take Area", which is surrounded by a 50m Marine Reserve (Buffer Zone). The guidelines surrounding Tabugon's "No-Take Area" include:

- No Fishing Zone
- No entering/passing with Motor Boats
- No cutting or gathering of Corals or Stones
- Swimming, Snorkelling and SCUBA Diving is Permitted (Upon Request)

Tabugon's 50m Marine Reserve (Buffer Zone) has been established surrounding these permanent marker buoys. The guidelines for Tabugon's Marine Reserve include:

- Single hook and line fishing ONLY
- No cutting or gathering of Corals or Stones
- Swimming, Snorkelling and SCUBA Diving is Permitted (Upon Request)

In addition to Tabugon, Napantao's Fish Sanctuary (MPA established in 1996) has also finalised its boundary installation.



A Google Earth image of the newfound MPA boundary in Barangay Tabugon, Liloan Municipality.
- Coordinates obtained by PENMRO.

Napantao Day!

Saturday the 27th January saw CCC's staff and volunteers attend Napantao's 10th Founding Anniversary. They celebrated by doing what they do best: song and dance! Since Christmas, both adults and children have been practicing their song or dance routine, which they would be performing in the song and dance completion, set at Napantao's local basketball court that had every family member and their dog attend!



Left: A Napantao high school group showing off their moves and choreography skills to the crowd.
- Photo by Chelsea Waters (PS).

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. If you would like more information about our surveying please contact our Project Scientist, Chelsea Waters.

January saw CCC's survey vessel the 'Nudi Hunter' back in the water ready to kick start the 2018 survey year. January and February surveys have been dedicated to Barangay Tabugon MPA (Liloan Municipality). Since its MPA establishment in 1993, the MPA and marine reserve boundaries around Tabugon have moved since CCC's initial baseline survey (2014) and associated report suggesting the replacement of boundary coordinates to allow maximum protection of the coral reef community structure. Due to this boundary shift, CCC has revisited the site to regain baseline data that can be used as a comparison in future years to assess the effectiveness of the MPA. As of current, a Rapid Visual Assessment (RVA) has been carried out within the Tabugon MPA, to obtain an overall perspective of the reef health and community assemblage. An RVA was carried out by CCC staff and volunteers on Monday 29th January within the Tabugon MPA.

Results from this dive suggested that this site does suffer from high levels of disturbance with regards to wave action and storm damage associated with Habagat. Largely exposed rock formations, with newly founded coral recruits suggest this site is capable of favouring coral growth outside of this yearly weather event. By establishing boundaries, and following guidelines with regards to its "No-Take Zone" status, will allow disturbance tolerating reef substrates to successfully establish themselves. A complete CCC MPA survey will be carried out within Tabugon MPA in February.



Barangay Tabugon MPA summarised in photographs.

- Photo by Chelsea Waters (PS)

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 Scholarship News

Each month CCC offers Filipino nationals who display an ambition to study and protect the vital marine ecosystems of the Philippines an opportunity to take part in our Marine Conservation Scholarship. The programme lasts for one month and involves training in SCUBA diving to the level of PADI Advanced Open Water. Scholars then take part in an intensive Skills Development Programme giving them the knowledge and expertise to conduct sub-marine surveys of the coastline.

January welcomed Kenneth See to CCC's Marine Conservation Scholarship Programme. With a background in Information Technology, Kenneth had never truly been exposed to the world of marine conservation. Regardless, Kenneth took on the challenge of mastering underwater buoyancy and species identification in order to carry out CCC's MPA monitoring surveys conducted throughout Sogod Bay. We are so proud of Kenneth's progress, for not giving up, and dedicating his spare time on site to both theoretical and snorkelling species identification revision! Now with the skills and knowledge needed to study and implement MPA's within the Philippines, Kenneth already has a project in the making to continue the establishment of MPA's and advocating for alternative livelihoods here in the Philippines.

"Thank you to CCC for taking a chance on me and accepting me as a scholar. It was a huge investment on your part to get someone like me trained up, and it must have been a frustrating experience that I could only go to a certain point in my training due to my visual limitations. I may not be able to see those cardinalfish hiding beneath branching corals, or those fusiliers in the distance yet within the virtual bounds of my transect, or those tiny nudibranchs blending in with the rocks, but I see all the professional, generous, and tireless work CCC are doing in educating locals and international volunteers on the Whats, Whys and Hows of protecting marine ecosystems, while respecting the social and cultural context they are in. And amongst all the wonderful things I saw in those four weeks, that is the most beautiful."

- Kenneth See, January Scholar



Kenneth See (Scholar) ecstatic after his first ever whale shark encounter in Pintuyan!

- Photo's by Rafael Manrique (SI)

If you would like to apply for the CCC Marine Conservation Scholarship programme or read more about it, please visit: <http://www.coralcay.org/volunteer/scholarship-opportunities/>

Marine Creature of the Month!

CCC's *Creature of the Month* goes to the Ocean Sunfish (*Mola mola*), the heaviest known bony fish in the world (maximum published weight of 2.3 tonnes; 300cm in length), and seen this month within Napantao House Reef by our very own Jesse Tinapay (CLO) and Tom Dallison (Head of Science)! The Sunfish is a member of the order Tetradontiformes, which also includes the pufferfish, porcupinefish and filefish. This grouping classifies these fish due to the four fused teeth that form the characteristic beak, and give the order its name (tetra = four, odous = tooth, *forma* = shape). The Ocean Sunfish is one of three different species within the Family *Molidae*.



The heaviest bony fish in the sea, the Ocean Sunfish (*Mola mola*).

- Photo by Maisy Fuller (SO)

The Ocean Sunfish is a pelagic-oceanic species that occurs in subtropical waters, between depths of 30 and 480m. It is an active swimmer using its anal and dorsal fins as a pair of wings to allow highly directional and horizontal movements, regardless of the lack of a gas-filled swim bladder (the organ that gives most bony fish control over their buoyancy). Scientists have observed a diurnal pattern in depth utilisation, with Sunfish residing in the warmer mixed layer above or within the thermocline at night, and repeatedly diving beneath the thermocline to cooler water during the day. Due to these prolonged periods of time spent in cold water, the Sunfish have been known to spend time "basking" or laying on swimming on their sides at the surface during the day to re-warm, coining their common name "Sunfish".

Few studies have been conducted on the reproductive biology of Ocean Sunfish, however it is famously known as being the most fecund of all vertebrates with a female containing an estimated 300 million eggs. These eggs are very small (mean diameter 0.13cm), therefore their associated growth rate is staggering. For a 0.25cm larva to grow to a 3m adult requires an increase in mass of times 60 million. Captive growth rates have shown to be between 0.02 and 0.49kg/day in weight. This is surprising considering their diet largely consists of sea jellies. Because this diet is nutritionally poor, they must consume large amount to develop and maintain their great size. A combination of heavy rainfall and a strong ocean current caused a great influx of jellies into Sogod Bay - a probable reasoning behind their unexpected sighting!

Regardless of this large reproductive potential of the *Mola mola*, they are classified as Vulnerable under the IUCN Red List of Threatened Species. Major threats to the Ocean Sunfish population largely consist of the high levels of bycatch observed in many fisheries, with some situations resulting in the bycatch of the Ocean Sunfish far outnumbering the target species.

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