



- CCC CARRIED OUT AN ASSESSMENT OF THE REEFS IN THE COASTAL WATERS OF BARANGAY ANISLAGON IN MARCH 2016



- THE REEF IS IN GOOD HEALTH BUT SHOWS SIGNS OF OVERFISHING. THE AREA WOULD BENEFIT FROM A PERMANENTLY ESTABLISHED NTA WITH 50M BUFFERING ZONES TO MITIGATE AGAINST LOCAL STRESSORS



- ELECTRONIC AND HARD COPIES OF THE FULL TECHNICAL REPORT ARE AVAILABLE FROM OUR PROJECT SCIENTIST: lrcp@coralcay.org

Barangay Anislagon

Proposed MPA

The coral reefs of Barangay Anislagon are host to a diverse array of habitats and coral reef associated organisms, offering a beautiful, aesthetically appealing ecosystem. With its intricate invertebrates and colourful fishes, this site, if protected, has the potential to become an exceptional dive site.

The Current Status of the Anislagon Reef

Surveys conducted by CCC found that the abundance and diversity of fishes were at moderate levels across the reef. However, these did not differ between 6m and 12m.

The abundance and biomass (kg) of commercially important species surveyed was low whilst being classed as small in size (11-20cm) with no individuals larger than 30cm.

The size and low abundance of the commercially important fish is concerning and suggests that too much fishing is taking place.

Parrotfish were the most

abundant commercially important species and contributed the greatest biomass across the reef.

Crown of Thorns Seastars (CoTs) were recorded in high abundance and therefore plans should be put into place for their removal.

Rock was the dominant substrate with hard coral covering a mean of $\pm 20\%$.

Hard coral composition was dominated by stress tolerant corals; a sign of detrimental anthropogenic stressors.



Why Are MPAs Important?

MPAs protect areas of reefs from human impacts. Within an MPA, fish are protected and can grow larger, producing more offspring. This leads to 'overspill', increasing fish numbers outside the MPA. In the Philippines many very successful MPAs have been created including the famous Apo Island MPA. Not only do these well managed MPAs help to enhance fish stocks, they also provide income from tourism and other benefits such as protection of coastal habitats and communities from storms.



CCC's assessment of the Anislagon Reef

The coral reef across the whole survey site is in good health. However, the amount of small sized commercially important fish is a concern.

Many fish take a long time to grow in size and need to reach a certain length before they become sexually mature. In addition, larger fish produce more offspring. Therefore, fishing large, adult fish, and removing them from the coral reef means that less offspring are produced and the population decreases and cannot recover.

The coral reef will benefit from an established no-take area (NTA) that is protected by 50m buffer zones. Protecting a proportion of the coral reef will protect fishes and invertebrates from fishing practices allowing them to grow, become sexually mature and produce offspring. Over time, this will lead to a "spill-over" effect, increasing the size, abundance and diversity of organisms in the area. Increasing the abundance of Grouper will also indirectly reduce CoTs numbers naturally.

As the coral reef's health and the cover of hard coral increases, the potential for dive tourism will increase.

Key Recommendations:

- Based on the CCC's survey of this site, it is recommended that an NTA of 10.55ha is established that prohibits all fishing activity. This NTA should be further protected by 50m buffer zones (5.56ha) that allows hook and line and spear fishing equating to a total of 16.11ha of Anislagon coral reef being protected.
- Reduced fishing will allow commercially important species to increase in size and 'spill' out of the MPA, benefitting members of the local community with larger, more valuable fish such as *Lapu Lapu* (Grouper) and *Mul Mul* (Parrotfish).
- It is further recommended that community members be involved in the decision making process to increase compliance.



Right: *Amphiprion frenatus*, a mischievous Tomato Anemonefish species found inside an Anemone on Anislagon coral reef

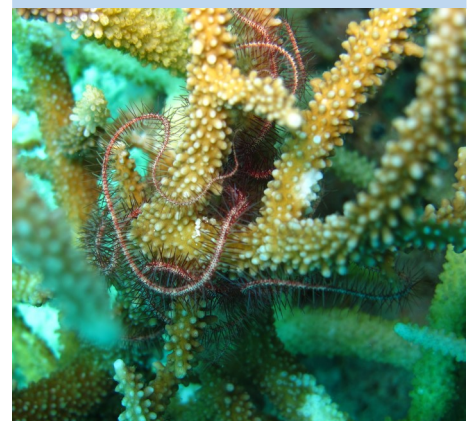
Why do some fish need coral?



Coral reef fish need hard coral as it provides somewhere to live as well as sources of food. Hard coral comes in lots of different shapes and sizes; some are round and some branching. A mix of different types of coral results in lots of hiding places for fish. In these places they can hide from bigger fish that would normally eat them, allowing them to survive.

Due to not being eaten, the populations of the smaller fish increase and they attract the larger fish that see them as prey.

These larger fish then attract the even bigger, commercially important predator fish such as Snapper and Grouper. These increasing populations can eventually attract predators such as sharks and Napoleon Wrasse that are very attractive to divers!



Coral Cay Conservation

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Expeditions

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