
Tobago Coastal Ecosystem Mapping Project

Project Update
May 2007



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Project Brief

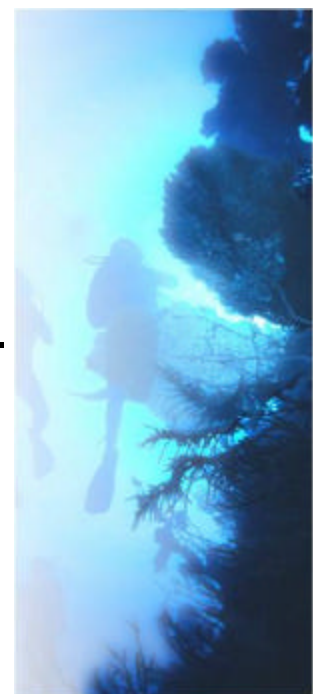
Tobago's reefs face serious and urgent challenges however their state has not been comprehensively documented. The *Tobago Coastal Ecosystem Mapping Project* (TCEMP) is a two year (2007-2009) collaborative effort to develop habitat maps of invertebrate, fish, algae, marine plant and coral diversity as well as human impacts and coral diseases on Tobago's reefs. The program also provides training and conservation education opportunities for local Tobagonians. The project is a component of an *Integrated Watershed and Coastal Area Management* project and will help ensure the long-term protection and sustainable use of Tobago's precious coastal ecosystem.

Coral Cay Conservation provides resources to help sustain livelihoods and alleviate poverty through the protection, restoration and management of coral reefs and tropical forests.

Location

Arnos Vale, Tobago, Trinidad & Tobago, Caribbean

Partners



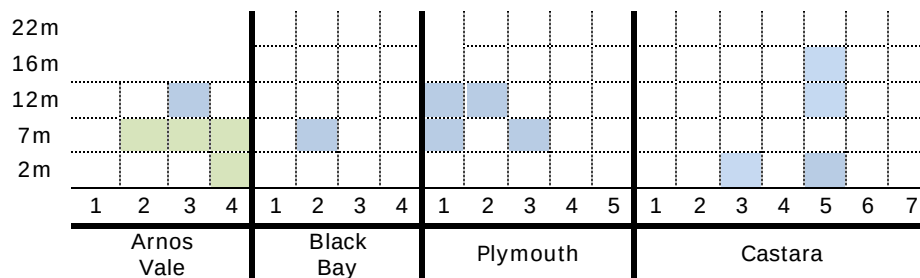
Surveys

With a core group of trained volunteers we have been steadily conducting surveys all month. We are using the project's smaller boat, *Reef Angel*, to survey nearby locations. Our four-person crews have seen some degraded reefs and some large stretches of sand, but have also seen beautiful reefs with plenty of live coral cover. It's great to know that some of Tobago's reefs are still holding out in face of serious challenges.

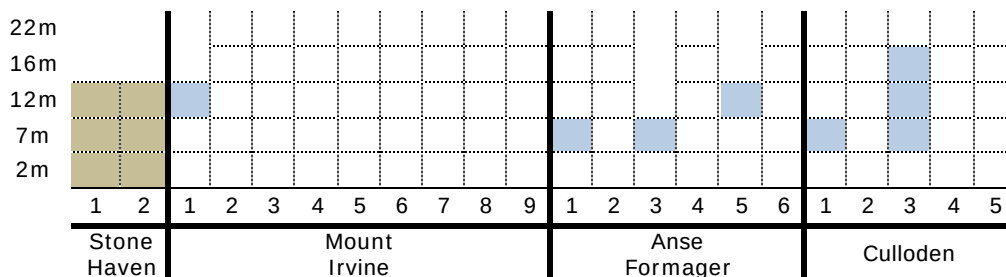
What is a Survey?

CCC surveys involve laying down a 50m long rope over the reef. Volunteers swim along the rope and count the number of each species they see. Surveys give us detailed information about a small part of the reef.

As we do more surveys, we build up a picture of how the entire reef is doing.



The tables above and below show surveys conducted so far on the project. There are several numbered stations (e.g. 1, 2, 3, 4) for each location along Tobago's coast (e.g. Arnos Vale). Stations are spaced 250 m apart. At each station, up to five parallel 110m depth contours (2m to 22m depth) are surveyed for fish, invertebrate, coral and algal species as well as for coral diseases and other impacts on the reef. Contours where boxes are absent show where the ocean is too shallow to survey.

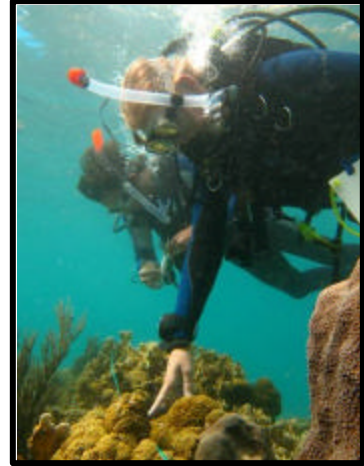


Legend

Survey Completed this Month ■
 Survey Completed Previously ■
 Sand
 Survey Not Yet Completed

Science Training

CCC Tobago has now had 17 volunteers graduate from the newly revised Tobago Science Development Program (SDP) including 12 graduates this month. We have also had 3 graduates pass through our enhanced ReefCheck training program. The most exciting part of the last SDP was seeing our experienced volunteers pitch in with their knowledge and enthusiasm to help out the new folks. With the help of senior volunteer's tricks for memorising species and with time spent diving together, the new group has made it through the SDP in record time.



Identifying invertebrates on a survey. Photo Angelie Peterson

Partners and Outreach

Project Launch

The TCEMP will be officially launched at Arnos Vale Hotel on June 26th, 2007. For more information, contact the Buccoo Reef Trust at 868.635.2000.

We were fortunate this month at CCC Tobago to have visits from some great friends and supporters. The Buccoo Reef Trust organizes a field course through the University of New England. They spent an exciting afternoon with us snorkelling on the reef and learning about the TCEMP. We also had a talk from James Foley, a master's degree candidate at the University of Newcastle. James conducted his field work in Tobago with the Buccoo Reef Trust, looking at how the concentration of pollutants in reef creatures decreases with distance from a pollution source. We were also very excited to have a visit from the British High Commissioner to Trinidad and Tobago. We had fun with he and his wife, touring around the site and talking about the project.

CCC Tobago crew have been out two evenings every week patrolling Tobago's beaches watching for nesting turtles. Witnessing a leatherback digging a nest, laying its eggs, and dragging itself back to the sea is an awe-inspiring experience. Read more about our crew's turtle adventures on the CCC website.

One of the most moving events of the month for most of us was a visit from David Hood and his family. David joined the CCC Phillipines marine expedition in November, 2005. He had to cut his stay short because he was not feeling well. On returning home, he was diagnosed with a serious form of

bone cancer. David and his family visited the CCC Tobago site on May 17th. It was great to hang out and share stories. David's mother and brother had a chance to go SCUBA diving, and David was able to see the reefs again during his stay. Words like courageous and inspirational sound hollow and trite, but everyone at the site feels privileged to have shared a small part of his story. David tried, hoped and cared, and in doing so, set an example we can all follow.

Fish of the Day

At every CCC site, we pick the most exciting life-form that was seen each day. With so many trained divers in the water, our crews see some pretty amazing things. This means that the competition is hot and we often rely on behaviour to separate the contestants.



A lettuce sea slug on Arnos Vale Reef. Photo Dan Groves

We occasionally see large, pelagic fish such as Manta rays which invariably win fish of the day. Sometimes, a rarer or hard to find coral such as certain Cup corals will win. But, more and more it is coming down to being in the right place at the right time and spotting interesting behaviour. Recently, this has included a Tiger and Grasby grouper in full mouth-to-mouth combat, charging toward each other with mouths wide open.

Another great spot was a pair of Honeycomb cowfish going through their spawning ritual. They are usually quite slow moving cryptic fish that stay close to the reef. However, during courtship and spawning they lose their inhibitions and cruise out into the blue. When our crew first saw them the pair of cowfish had left the safety of the reef, swimming close together. Next, they turned belly to belly and headed quickly up toward the surface, releasing eggs and sperm. It was early afternoon, rather than the preferred cowfish spawning time of dusk which makes it all the more unusual. Obviously, witnessing this behaviour deserved to win fish of the day.

Dan Groves

Did You Know?

A 100 cm Grouper can produce a million or more eggs¹!

Learn More!

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

¹Lieske, E. and Myers, R. 2001. Coral Reef Fishes: Indo-Pacific and Caribbean. Revised Edition, Harper Collins, London