Integrated Coral Reef Citizen Science Program

Project Update
April 2020

The Reef Ecologic Integrated Coral Reef Citizen Science Program is funded by the partnership between the Australian Government’s Reef Trust and the Great Barrier Reef Foundation.
Introduction

Since April 2019 Reef Ecologic has been working with project partners, Reef Check Australia (RCA) and Great Barrier Reef Legacy (GBR Legacy), the Great Barrier Reef Marine Park Authority (GBRMPA) and CoralWatch to deliver the Integrated Coral Reef Citizen Science Program.

The project has been designed to collaborate with existing citizen science organisations utilising complementary reef monitoring projects (Eye on the Reef, Reef Check, CoralWatch) to expand our knowledge and share information regarding the health of the reef in the Townsville region including Magnetic and Palm Islands.

Achievements

Over the initial 12 months of the project volunteers and staff have surveyed 22 sites at 13 locations throughout the region. 109 volunteers (of which over 47% of participants have been under 25 years of age) have participated in multiple activities providing over 1000 hours of time to develop, grow and contribute to citizen science. We have worked with the community and project partners to collaborate in delivering 7 training events or workshops.

Reef Ecologic is thrilled with the achievements of the first 12 months and despite the challenges presented by COVID-19 restrictions, we are excited about the next 12 months of the project.
Reef Ecologic observations throughout February and March 2020 highlighted substantial coral bleaching on reefs throughout the Townsville region. Offshore reefs displayed a lower prevalence of bleaching than inshore reefs. Quantitative surveys at offshore locations showed 14% of LCC was exhibiting signs of mild bleaching. Much of the coral at these locations is expected to recover from this level of bleaching.

- Live coral cover (LCC) was measured at 36.28% across all sites and locations using Reef Check Australia’s point intercept transect surveys (n=23*).
- Palm Island reefs illustrated the highest mean coral cover (n=8) at 39.84% compared to offshore locations (37.68%) and Magnetic Island Reefs (n=8) (31.48%).
- The highest recorded coral cover was at John Brewer Reef with a mean LCC of 65%.
- Soft coral (12.26%) was prominent at Palm Island reefs.
- Bleaching was minimal across all sites throughout 2019.
- Incidences of coral disease were very low (recorded at offshore and Magnetic Island reefs).
- Crown-of-Thorns starfish were observed at one offshore location, John Brewer Reef.

* Includes data from 5 RCA surveys collected outside this project

---

**Key Findings**

- **Reef Stress**
  - Reef Ecologic observations throughout February and March 2020 highlighted substantial coral bleaching on reefs throughout the Townsville region. Offshore reefs displayed a lower prevalence of bleaching than inshore reefs. Quantitative surveys at offshore locations showed 14% of LCC was exhibiting signs of mild bleaching. Much of the coral at these locations is expected to recover from this level of bleaching.
**Training and Workshops**

Throughout the year Reef Ecologic and partners collaborated in a number of internal and external workshops to improve partnerships and empower the community.

Twelve participants joined the 3-day Reef Leadership Workshop at Orpheus Island Research Station. They learned a variety of survey methods and techniques to measure the health of the Reef. The workshop also provided leadership development to empower community members in their everyday lives.

In November we extended our annual reef restoration workshop to include elements of leadership and survey training. Twenty nine people attended the 4-day workshop and were given an introduction into a number of reef survey methods which were put into practice during inwater training sessions.

**Traditional Owners**

Project partners have been working to engage and empower Traditional Owners as part of our training and capacity building programs. In September we enabled Yirrganydji Traditional Owner Tarquin Singleton to undertake Reef Check Australia surveyor training. Additionally, 8 Traditional Owners engaged in leadership and survey training at Orpheus Island in November 2019.

**Reef Check Australia Training and Engagement**

The Project has supported community participation in Reef Check Australia Ambassador and Surveyor training programs in the second half of 2019. We provided funding support for community members to undertake training in Townsville and at Orpheus Island. Additionally, Reef Ecologic sponsored two new RCA Ambassadors who joined the ranks and participated in a number of events in Townsville throughout the second half of 2019 including Townsville City Council’s National Water Week.

**Supporting Management**

Reef Ecologic have been working closely with project partners to ensure our citizen science programs support ongoing management. We have preferentially selected programs, such as the Eye on the Reef, that contribute directly to data sources that are used by the Marine Park Authority to make decisions on Reef management. Strengthened partnerships have enabled us to support training of community volunteers in the Eye on the Reef methods. Data has been shared with the Townsville City Council and Dry Tropics Partnership for Healthy Waters for inclusion in regional report cards.

**Acknowledgements**

This project was made possible by a network of dedicated volunteers, generous dive operators, wise advisors, innovative collaborators and supportive funding agencies. Project activities were conducted on the traditional lands of the Wulgurukaba and Bindal People. We acknowledge the Traditional Custodians and their connections to land, sea and community. We pay our respect to their elders past and present and emerging. The Integrated Coral Reef Citizen Science Project is funded by the partnership between the Australian Government’s Reef Trust and the Great Barrier Reef Foundation.