

CITIZEN SCIENCE FOR THE FUTURE OF OUR REEFS







Queensland Brain Institute



EVENTS July/August 2019



International Coral Reef Workshops

4 and 17 July, MacQuarie University, Sydney

As part of the Gateway learning program public speaking program, visiting students from China, Mongolia, Taiwan and Vietnam attended CoralWatch Coral Reef workshops to discover more about Australia's Great Barrier Reef. Students were actively engaged with learning about coral reefs through video presentations, interactive quizzes and games, and VR experiences. Students discovered how they could protect the reef from home by reducing their environmental footprint and became citizen scientists for the afternoon as they learned how to monitor reef health using Coral Health Charts. The Gateway learning students also demonstrated their understanding of the afternoon's workshop by creating and presenting a coral reef inspired poster.



For most of the students, this was their first experience of Australia and with English as their second language it was really important to make the workshop as interactive as possible. The interactive quiz presentation worked really well encouraging all students to become involved with learning about the reef. The VR was also a big hit and great experience. The creation of a coral reef poster provided the opportunity for the students to show what they had learned while practising public speaking.

STEM Display - Open Day

25 July Brisbane Boys College, Brisbane

CoralWatch displays and VR experiences were held at the Junior, Middle and Senior school to introduce potential students and families to the STEM opportunities on offer at Brisbane Boy's College. As the resident CoralWatch Ambassador at the school, over the last year I have incorporated CoralWatch into the STEM Club program and provided CoralWatch educational resources to the teachers. Visitors to the school were captivated by the virtual reality experience which provided an opportunity for them to explore the coral reef environment.

Outreach: 40 parents, 30 students, 10 teachers

Maria



Data collection at Lady Musgrave

16 August, Gidarjil Traditional Owners Onboard Lady Musgrave Experience

As part of the citizen science project (Lady Musgrave Reef Custodians), and following a training that Diana/CW presented at and trained LME staff and Gidarjil rangers, 2 rangers came out to collect data at Lady Musgrave Island. The special guests onboard attracted a lot of attention from guests and a reef presentation was delivered to around 40 guests. Issues such as reef health and climate change, as well as possible actions to reduce these were presented and discussed among participants and guests on board.

The Gidarjil Rangers were really engaged and collected a full CoralWatch chart of data.

Outreach: 2 Gidarjil Rangers, 40 passengers

Natalie L.

Outreach: 146 students, 11 teachers

Maria and Suzanne





Training workshop in June, Gidarjil Rangers and LME staff practising CoralWatch data entry.



Prabional science week EVENTS August 2019



High School Workshop

2 August, Northside Christian College

Maria and Karen J. visited the college as part of National Science Week Festivities. Not your ordinary lunch hour, the CoralWatch team took the Coral Reef to the lunch room to expose students and teachers to corals through a virtual swim. Students were actively engaged with learning about coral reefs through quizzes, observing coral skeletons and the VR headsets.

What worked well: The VR set up - utilising the long lab benches enabled the team to efficiently engage with waves of students surging in for the VR session.

What didn't work so well: Setting up and clearing up were time pressured. The allocated room was in demand for lessons as soon as lunch period was over.

Outreach: 115 secondary students, 5 teachers

Maria and Karen J.



CoralWatch Stall at the Bundaberg Oceanfest 24 August, Bundaberg Port Marina

Festival goers learned about coral reefs, and celebrated their own local Southern Great Barrier Reef. CoralWatch Ambassador, Natalie presented in the educational 'Reef Room' about reef health and citizen science. Ambassadors Dave and Maria assisted with the display. Various interactive activities and competitions attracted attention and involved participants. As usual the Virtual Reality was a hit!

Number of participants at event: 600 (300 students/children, 300 adults, 10 teachers)

Thanks Dave for traveling South and Maria for travelling North to assist with this big event. It was really wonderful to have lots of help, couldn't have done it alone!

Natalie L., Maria, David and 2 Taiwanese interns



Community Event

10 August, QLD Museum National Science Week Festivities CoralWatch and Coastal Protection Core joined forces to share the wonders of the marine environment with museum visitors for this year's National Science Week. Together there was an array of activities with corals and marine species to see and touch, virtual reality reef activities with corals and marine species to see and touch, virtual reality reef dives to experience as well as Moreton Bay quizzes.

Stall location by the giant squid is just fantastic. The squid is such an attention getter.

Outreach: 106 people (60 students/children; 30 adults; 10 teachers; and 6 museum staff)

Maria and UQ volunteers Phebe, and Amy



Community outreach and data collection

25 August, Coral Cove Community Coralwatch, Barolin Rocks Community Citizen Science Workshop and data collection snorkelling event as part of National Science Week activities. During the workshop people learned about threats to the reef and how to collect data using the CoralWatch Health Chart and how to protect corals for the future. There was a coral naming competition, coral reef quiz and a dry land virtual reef activity. For those participants eager to go for a swim, there was the opportunity to get amongst the magical world of coral reefs for hands on data collection. Participants were engaged with all activities.

Outreach: 30 People (15 students; 15 adults; 2 teachers) Natalie L., Maria, David and 2 Taiwanese interns



Pradional science week EVENTS August 2019



'Act to Protect' Community event, Palm Island 22 August, Palm Island Knowledge Centre

Suzanne and Valentine organised an outdoor display at the Bwgcolman Indigenous Knowledge Centre to introduce the local community to CoralWatch. Community members participated in virtual reef monitoring and how to get involved in monitoring the health of local Palm Island reefs as citizen scientists. Many curious children visited the stall after school and loved the virtual reality. Great first event and introduction to the island community.

Number of participants at event: 40

Valentine, Suzanne, Karen H, Diana



School Event

23 August, St. Michaels School, Palm Island

CoralWatch delivered two interactive workshops to students from prep to year 6 at St Michael's Catholic School. 80 of the 100 enrolled students learned about coral reef through a formal presentation, practiced using the Coral Health Chart on virtual reefs, created their own reef art work, experienced Virtual Reality of the GBR and tested their newly learnt knowledge using our online quiz. A busy day with lots of energy from the students.

Number of participants at event: 80

Valentine, Suzanne, Karen H, Diana



Thanks Suzanne and Valentine for your hospitality and guidance for 3 days. We loved our introductory visit to Palm, where we could meet people, explore options and make plans together for our events as part of our Great Barrier Reef Foundation grant. Looking forward to return next year.

Diana and Karen H.



Community event and data collection 25 August, Orpheus Island, Yanks jetty

Suzanne and Valentine organised free spots for CoralWatch on the Orpheus Island scenic day cruise with Sealink Townsville. In return, CoralWatch provided a talk, information brochures and display and visitors were invited to participate in citizen science and collect data at Orpheus Island.

Another great opportunity to learn about corals and the importance of the reef systems and how to protect them. For those who were less keen to get in the water, virtual reality was an exciting experience on the way back. Some keen individuals entered their data directly and were awarded with a price.

Number of participants at event: 60

Suzanne, Karen H, Diana



Additional science week events Maryborough in collaboration with the Office of the QLD Chief Scientist

• Display at Community event 'STEM Pop-up' (Karen H and her son Aamon)

• STEM workshops for Prep to Year 4 students from Torbanlea State School and Maryborough Central State School, along with a group of home-school students (Karen H and her son Aamon) **Brisbane**

- 'Street Science Festival' Student day (Karen J, Diana and Erin)
- 'Street Science Festival' Community day (Karen J, Erin and UQ volunteers)
- Moreton Bay cruise (Diana, Erin)
- School visit Yeronga SS and kindy (Carissa Klein) Gold Coast
- Soap box science (Carissa Klein)

CoralWatch organised a total **14 National Science week events** More photos and info in additional document- overview of all events) **Total outreach: 6,790 people**



EVENTS September/ October 2019



SeaWeek - School event 2-8 September, Perth

Sharon (first year ambassador) relocated to Melbourne and works at a school with really motivated Science students who are passionate about conservation issues - in particular marine. We have send materials to her and she was able to download our new VR content to use with her own headset.

It all went really well, the students thoroughly enjoyed all the activities and learned a lot about coral reefs! There was a really great buzz in the library, and I'm sure we would love to be involved with more Coralwatch activities next year. Thank you so much for all your help and wonderful resources.

Sharon



STEM Faire

14 September, Thuringowa Library, Townsville

The Townsville STEM Hub brings together a celebration of science, technology, engineering and maths in the North Queensland community.

CoralWatch inspired conversations about all things. Participants put on the Virtual Reality Headsets for a virtual dive and brought the world of coral reefs into the library. Paddy gave a formal CoralWatch presentation.

Win News report has a few CoralWatch snipets. There was a video of the STEM Faire on facebook but unfortunately you can't view it anymore.

Outreach: >1800 people

Paddy and Lucy



ReefBlitz is an annual event that lets you contribute to a snapshot of catchment and reef health, and get involved in practical actions to help look after Queensland's reefs. CoralWatch likes to award our biggest data contributors during our <u>ReefBlitz</u> month.





Highest individual contributor of this month was Nicole from Bundaberg, monitoring 120 corals at Lady Musgrave. Highest group effort was by Gordonvale SHS in Cairns, students collected 170 corals at Flynn reef. Both will receive a CoralWatch book and DVD as a thank you for their efforts.

In addition, we like to thank Small World Journeys, they got 4 schools participating in CoralWatch during October, collecting data from 274 corals on Fitzroy Island.



Biodiversity Roadshow

13 October, Wellington Point

Biodiversity Roadshow is hosted by UQ each year where the community can come and learn about marine related science. There are plenty of activities run throughout the day. Coralwatch was invited to have a stall there. We had the VR sets and quiz for people to participate. The VR sets were great as usual, and the books Drawdown and 2040 were great stimulation for deeper discussions. it was a really good day with a lot of genuine interest

Number of participants at event: 110

Natalie M, Maria





Ambassador EVENTS 2019

EMBEDDED AMBASSADOR ACTIVITIES

We have noticed that for many of our ambassadors, CoralWatch is now embedded in regular activities or programs. This is a great outcome of our Ambassador program. Thanks for all your ongoing efforts and enthousiasm to help reefs.

Boyne Island Environmental Education Centre (BIEEC)

Somone at BIEEC started running a lesson using VR goggles to explore the coral reef and look at coral bleaching and the sustainable practice of breeding clown fish. She is embedding sustainable practices in the lessons and she has been sharing her knowledge of CoralWatch with the students. They are using the images from Lizard Island Research Station to demonstrate the speed at which bleaching is occurring - which is very powerful. Students are asked to generate ways they can 'think global and act local' to help save the reef. They found the posters 'Save coral reefs from home' and the 'Great Barrier Reef Factsheet' really beneficial for this. They are both updated in July this year, the latest versions are available <u>online</u>.

We supplied Somone with a non-coloured version of the 'Save coral reefs from home' as a great activity for the younger students to be able to colour in the idea that they can commit to. Great idea, Somone!





Small World display at Teacher Conference 1 October, Gold Coast Geography Teacher Conference Laurie recently attended the Geography teacher conference at the Gold Coast. Part of her display included CoralWatch materials.

The conference was well attended, and the Fun Fieldwork at The Great Barrier Reef workshop was attended by nine teachers. The co-presenter was Chris Mann from The John Monash Science School, who related the activities back to the curriculum and provided a first hand account of his school's experience with Small World Journeys and CoralWatch. We introduced the virtual coral reef, and got teachers involved with the waterproof slates to determine coral colour. We even had a teacher volunteer her hands to be finger coral so we could practice the data collection on her! We encouraged the teachers to take advantage of all the tools available through CoralWatch, even if they were not able to get to the reef itself.



Data collection at Fitzroy Island

3 September and 6 September, Fitzroy Island Laurie and the team from Small World Journeys made

CoralWatch education and data collection part of the regular program so many schools get involved.

The latest group from Alamanda College Melbourne (Prep to Year 9) enjoyed a range of snorkelling and water activities at Fitzroy Island, learning CoralWatch data collection skills and knowledge about threats and human impacts on coral reefs. During the school visit, students completed 30 surveys, and have plans to revisit with another school group in 2020.

Outreach: 29 (24 students; 5 teachers)



'Bundaberg Reef Keepers' and 'Marine Biologist for a Day' program at Lady Musgrave Island

Lady Musgrave Experience launched their Marine Biologist for a Day program! The program brings together the Great Barrier Reef Marine Park Authority's Eye on the Reef program with CoralWatch to help more reef guests get involved in citizen science! This included a partnership with a the new Bundaberg Reef Keepers - a community group working hard to learn about and collect reef health information with Lady Musgrave Experience and Master Reef Guides. Look out for them in your community as they set out to share their learnings and become ambassadors for the beautiful Great Barrier Reef! These activities were made possible thanks to a partnership between the Australian Government and Great Barrier Reef Foundation.

Thanks to Natalie inspiring many people, lots of data being collected over the last few months at 2 main locations:

- Lady Musgrave, May Oct, 49 surveys >600 records
- Barolin Rocks, June Oct, 13 surveys > 193 records.



New RESOURCES available



Capricorn Coast Education Package 'Corals at Your Doorstep

David undertook a rewrite of the original work that was developed by the CoralWatch team for Moreton Bay Corals. During his training as an ambassador, David identified the need for a similar resource for Central Queensland and committed to developing one. The new work highlights the coral communities of Keppel Bay and Port Curtis. Boyne Island and North Keppel Island Environmental Education Centres. CoralWatch supplied many images and assisted David with the rewrite of materials. A grant from the Fitzroy Basin Association, funded the printing of 250 packages.

The education package includes coral Identification sheets, information leaflets, posters and a science lessons booklet for Year 7. The package will be launched in Gladstone and Rockhampton at the FLOW centre early next year. Very exciting to have these new materials available, thanks for taking the initiative David!

Instructional CoralWatch video



Erin Houselander, a lecturer at Griffith film school, offered to create a CoralWatch instructional video. The final results is 2.5 minutes, and gives a very clear overview of 'How to use the Coral Watch Health Chart in a few easy steps'. Available on our website. <u>https://coralwatch.org/index.php/news/videos/</u>



The Great Barrier Reef

4 page A-4 handout with information about the importance and threats to the GBR including coral bleaching. Backpage includes solutions and how to get involved in CoralWatch.

This brochure is an update version of 2016- Global Bleaching Event.

Community report cards

These report cards provide an overview of all CoralWatch data available from a specific area with data outcomes and contributors. It also includes photos of the area and general info. We produced one for <u>Keppel Islands</u>, <u>Lady Musgrave</u><u>Island</u> and provided an overview of all <u>GBR data</u> of 2018. We are planning to use these as a template for other areas in the near future.



Postcards

For National Science Week we produced a gift set of postcards with beautiful images and scientific information on the back. The set is available in our online <u>shop</u> - 10 dollar per pack of 6.





CoralWatch online quiz

A set of 6 giftcards with photos and in

For National Science Week we produced an online 'Citizen Science' quiz to run on our Ipads as a new activity. We trialed it during some of the events but it is still a bit challenging since it requires internet. <u>Have a go ...</u>



Other CoralWatch updates

Other updates

CORALWATCH STAFF

- Karen Hofman who replaced Monique during her maternity leave - has now moved with her husband James to a tropical island. They are the new caretakers of Low Isles, a small island with lots of day visitors, close to Port Douglas. Not a bad change! We are looking forward to visiting.
- Monique started back 2 weeks ago. Her little boy Nikita is now 9 months. Great to have back in the office!

EVENTS

- In July, Diana, Erin, Karen J participated in another Brainbee event at QBI where highschools compete in science activities. Good opportunity to catch up with Paddy as well, who came with students from Townsville.
- Karen J and Justin were part of an Q&A session at the 'Map to Paradise' movie in Indooroopilly events complex on 25 September. Questions include wanting to know more about the current state of corals on the GBR, the impact of agriculture run-off and what citizens can do from home to help.



Diana organised an **'Act to Protect' workshop** in Cairns during the Marine Teachers Association Queensland (MTAQ) conference which included a field day. It was very successful, reconnecting with existing teaching contacts and introducing new teachers to the CW program and resources.



Karen J. (left) and Erin (right) organised another **Moreton Bay cruise** as part of ReefBlitz together with the fantastic staff from with Moreton Bay Environmental Education Centre. Together they showcased the amazing and little known corals of Moreton Bay. This event was proudly supported by the Moreton Bay Environmental Education Centre and Port of Brisbane Pty Ltd.

 Diana and Maria attended the Ecomarines final presentation at the convention centre. There were over
>40 schools attending, all got involved in various ways, creating a wave of change in their schools, families and communities. Several schools participated in the CoralWatch challenge.

GRANTS / CONFERENCES - NEW SUBMISSIONS

- National Science Week 2020, to participate in 3 science festivals (Melbourne, Brisbane and UQ Sustainability) and to create / print the 'What can I do' action booklet.
- Madeline D. submitted an abstract for the poster session at the International Coral Reef Conference (ICRS) in Bremen next year. Title: 'CoralWatch - a citizen science tool to monitor coral bleaching and create reef awareness' and CoralWatch submitted an abstract for a talk 'CoralWatch: Creating global reef awareness through coral monitoring, education and outreach'.

And I am sure there was more...

Upcoming events/opportunities will be posted on facebook and emailed to you. Please check regular, we really appreciate your assistance, input and ideas!