



In this newsletter

- Launch of Capricorn Coast Corals at your Doorstep Education Package
- Data collection for Global Coral Reef Mapping Project
- New materials
- Cancelled events due to coronavirus
- The things we can still do ...

CITIZEN SCIENCE FOR THE FUTURE OF OUR REEFS

Dear Ambassadors,

I hope you and your families are all fit and healthy in this difficult time of the coronavirus. Who could have thought, the enormous impact this pandemic has on the whole world. It is a scary experience, impacting everyone and everything.

For CoralWatch it means that due to the COVID-19 pandemic we had to cancel/postpone our activities for the next few months, likely up to September or longer ... In addition, there will be less funding available for CoralWatch this year. Sadly, Erin has left CoralWatch and Karen, Monique and Diana had to reduce working hours.

We are in the process of applying for extensions and contract variations for all our current grants. Hopefully we can keep existing funding and organise our cancelled events at a later stage. We have already spoken to Department of Environment and Science who support our core funding and we get an extension of 6 months to complete the deliverables. This is a great outcome.

While events are on hold, CoralWatch will finally have the time for reporting (yeah), data analyses, grant applications, online lessons e.g. We will also use this time to create our CoralWatch "What can I do" booklet with solutions to climate change.

Take care, Please look after each other.
The CoralWatch team

Presentation Scientific Diver Training Brisbane 18 January 2020, 9AM-3.30PM Brisbane Square Library, Brisbane City

Amber attended a public training session for Gathering Information via Recreational and Technical (GIRT) Scientific Divers. The citizen science training was aimed at divers interested in adopting a wreck to conduct no-impact maritime archaeology.

As part of the all-day training session, GIRT encouraged its members to participate in other citizen science programs to gather as much data as possible on their surveys of shipwrecks, sunken aircraft or other underwater cultural heritage sites.

Amber presented to GIRT members how to use the CoralWatch Health Chart and how to upload coral health data, and its value, as part of their field surveys and their recreational diving activities.

GIRT is part of a PhD research project at the University of New England. A big thank you to event organisers Andrew Viduka and Toni Massey for asking me to present on the day and a big thank you to the CW team for supplying me with CW health charts for my GBR trip which I was able to use for this event. Participants included: university students studying undergraduate to PhD, members of Brisbane Sub-Aqua Club (BSAC), members of Unidive, Dive2Go owner and staff, as well as other recreational divers.

Number of participants at event: 30

Amber



CoralWatch Teacher Presentation

**19 December, Southern Cross Distance Education Centre,
East Ballina, NSW**

The session is an overview of climate change, its effect on coral reefs and how it is all inter-related. A presentation on recent data on the state of our reefs and how individuals can contribute to making positive change. The CoralWatch citizen science program is explained to highlight how to collect data to gauge the health of corals around the world.

The staff of the centre were enthused and engaged, keen to do a future CoralWatch survey PD.

Number of participants at event: 30

Melinda

Fisherman Road Market - CoralWatch stall

16 February, Kuluin, QLD

The event is a large field filled with stalls selling homemade goods, second hand, plants, food, art and lots of other things. The markets are very well-known on the Sunshine Coast and are frequented by extremely large crowds almost every weekend.

Luca organised a CoralWatch stall and attempted to talk to pretty much every person who walked past. She also handed out magnets and "save the reef from home flyers" which got a few people to check us out. The overall interest was quite limited, potentially due to a very hot day and not a great spot on the market. Luca also decided that it is much better to do this with more people and next time a few more materials.

Luca



UQ Experience Science Program

23, 24 January 2020, UQ, Brisbane

The UQ Experience kicked off the academic year for students (grades 7-10). Students participate in a variety of inspiring activities on campus, including CoralWatch. CoralWatch sessions kicked off with a short presentation on Citizen Science followed by virtual coral monitoring, coral quiz, and a plunge in for a swim with virtual reality headsets. The students asked engaging questions and left the workshops knowing they can help make a difference monitoring corals, and protect the marine environment. The 'Coral Reefs and Climate Change Book' and DIY Monitoring Kits made excellent participation prizes.

CoralWatch organised 6 workshops of 50 min each including presentation (15 mins) and rotating activities (VR, virtual reef and quiz) for year 10 students.

VR experience worked really well.

Some of the student groups were larger than expected. As a result rooms needed to be changed to reduce grounding.

Number of participants at event: 143 students

Jason, Robyn, Devin, Karen, Natalie M



CoralWatch Data collection for Global Coral Reef Mapping Project

17 - 24 February, Great Barrier Reef

CoralWatch ambassadors Maddy D. and Amber were extremely lucky to volunteer with the Coral Reef Habitat Mapping Team from [UQ RSRC](#) on their research expedition to the Coral Sea.

They travelled on the Iron Joy from Gladstone to Lizard Island from 16 February to 12 March on two field trips visiting remote reefs in the Coral Sea. Maddy was on the first trip to the southern Coral Sea from Gladstone to Townsville and Amber was on the second trip to the northern Coral Sea from Townsville to Lizard Island.

As well as assisting with the mapping of the Coral Sea for the [Allen Coral Atlas Project](#) and conducting Reef Health Surveys, the ambassadors conducted Coral Watch surveys. On their day off the team also conducted island clean-ups with Parks Australia who sponsored the expedition for the scientists.

It was an incredible opportunity to visit remote reefs that are not easily accessible and provide valuable data on the health of our coral reefs and oceans."

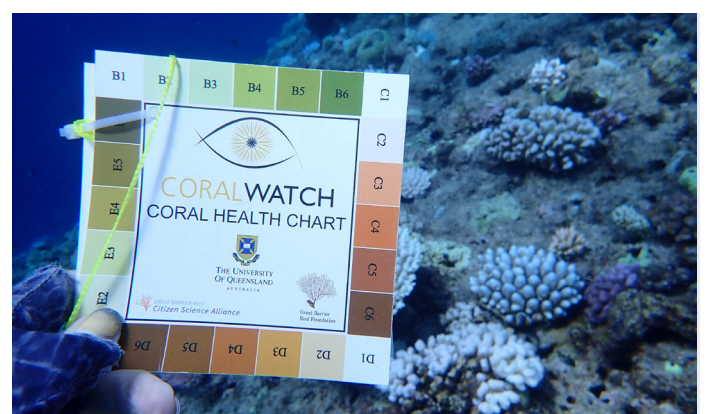
Trip 1: 17 - 24 February

45 coralwatch surveys / 890 coral assessed / 8 reefs / 8 days
(Team Emma Kennedy, Madeline Davey, Gretel Waugh)

Trip 2:

62 coralwatch surveys / 1121 corals assessed / 16 reefs / 15 days
(Team Alexandra Ordonez, Paul Tudman, Amber Moran)

Amber and Maddy





Launch of 'Capricorn Coast - Corals at your Doorstep' Education package

27 February, 2-7PM Education resources STEM expo, CQUniversity Marine campus, Gladstone

As part of this STEM expo, David organised a CoralWatch display and the launch of the 'Capricorn Coast - Corals at Your Doorstep' Education Package.

About 60 high and primary school teachers visited the displays and the first 40 of the new Capricorn Coast kits were distributed, including 6 local libraries. Dave organised a sign up list for schools who like a follow up CoralWatch school visit. There were 15 other stall holders including: CQUni, Indigenous rangers, Boyne Island Environmental Education Centre, Gladstone harbour and industry, CSIRO, Fitzroy River Basin Association and other citizen science groups such as Tangaroa Blue and HarbourWatch.

Thanks Dave for initiating this new great resource which includes coral identification sheets, information leaflets, posters and a science lessons booklet about both Port Curtis and Keppel Bay. Printing has been proudly supported by the Fitzroy Basin Association. Additional funding has been received by the partnership between the Australian Government's Reef Trust and the Great Barrier Reef Foundation. This package is the second in the 'Corals at Your Doorstep' series. Our original 'Moreton Bay - Corals at Your Doorstep' education package was produced in 2016, and supported by Port of Brisbane.

Number of participants at event: 90

The Gladstone Team: David, Somone and Diana



Third mass coral bleaching event

The Great Barrier Reef has experienced a third mass coral bleaching event in five years, according to the scientist carrying out aerial surveys over hundreds of individual reefs. See latest update from the [GBRMPA reef health update](#) (26 March 2020).

Several of our ambassadors have shared photos on social media showing the current bleaching. Valerio went on a research trip to Lizard Island and Ben shared photos from Bowen. The bleaching seems to be happening in the background of all the COVID-19 news, which is understandable, but please keep on sharing information about the bleaching. Perhaps also post some happy reef shots - people need it!

The photo above is a screenshot from a [new video](#) created by North Keppel Environmental Education centre. This is for senior students explaining the process of CoralWatch and the data collected during the snorkel along a 20m transect. The footage of Sloping Island, clearly shows the extend of the bleaching.

Some interesting links

- [Terry Hughes aerial survey](#)
- [GBRMPA reef health update](#)
- [Guardian \(1Apr20\) Mark Eakin \(NOAA\)](#)
- [NOAA 90 day prediction \(Jan-Mar\)](#)

More bleaching updates will follow in our upcoming global newsletter.

CoralWatch Media



[Gladstone Observer 29 February](#)

[ABC radio - Interview with CoralWatch ambassador and Boyne Island Environment](#)

CoralWatch Grants

Unfortunately we were unsuccessful with our **National Science Week 2020** grant.

Seeking new grants:

- 'What can I do' action booklet with practical solutions to reduce the impact of climate change. Funding required for printing and production
 - Rebuild of our global database. IT grant
- If you want to help search for funding and/or help writing, please let us know!



Reef Keeper events - Eye on the Reef rapid monitoring and CoralWatch surveys

15 February, 7 and 21 March, Lady Musgrave Island

The Reef Keeper program is an initiative from our Ambassador Natalie to increase the number of citizen scientists collecting data at Lady Musgrave Island. The program is supported by Lady Musgrave Experience offering discounted daytrips. On each trip a minimum of 5 reefkeepers conducts Eye on the Reef Rapid Monitoring and CoralWatch surveys on random parts of Lady Musgrave Island. Did you know you can download a [report card for Lady Musgrave Island](#) with an overview of all CoralWatch data?

CoralWatch Survey

We had one group do CoralWatch surveys on the permanent Transect set up at Lady Musgrave Lagoon. The other group did Random CoralWatch surveys.

Eye on the Reef Rapid monitoring

GBRMPA uses this to collect information about the health of the Reef and the distribution of marine animals. This information gives the Authority and other Reef managers and researchers snapshots of what's happening on the Reef at a single point in time. It provides comparative trend data over time and early warnings of impacts such as outbreaks of the coral-eating crown-of-thorns starfish etc.

The Reef Keepers are going out on regular data collection trips and currently the Lady Musgrave Experience is opening [applications](#) for it's next group of Reef Keepers!

The Bundy Team: Natalie, Jess and Rebecca



Junior STEM Club (Grades 1-6)

4,5,18, 19 March 2020, Brisbane Boys College, Brisbane

As the Junior STEM Club organiser and CoralWatch Ambassador-in-residence at Brisbane Boys College, I always enjoy introducing the students to the wonders of our coral reefs. It is always a bit of a challenge trying to fit in the wealth of CoralWatch activities into a lunchtime STEM session, so I decided to spread the variety of activities over a few weeks to enable the students to really dive deep into the reefy world. Our first week we started off with a CoralWatch presentation and hands on session, where students learned to become citizen scientists and measure coral health. Our following weeks we took a closer look at corals with the aid of microscopes, tested their knowledge with the CoralWatch quiz and took a virtual dive on the reef. Our budding young citizen scientists loved all of the activities and came up with some wonderful ideas to help protect our reefs!

Number of participants at event: 22

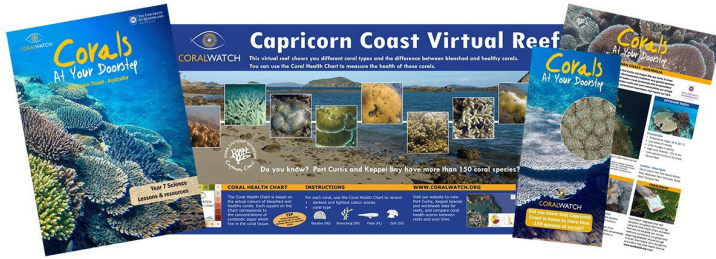
Maria



Good news about Aruba reefs

In February, Monique went on a holiday to Aruba to visit her family in the Caribbean. She has been snorkeling and diving there for almost 30 years. The reef has been declining badly, but this time she went for a few snorkels and dives and was impressed with the state of the reef. It is flourishing again, corals are coming back and the fish abundance was high and diverse.

Alex Dubero



‘Capricorn Coast Corals at your Doorstep - education package’ showcases this marine environment and its importance, promote everyday actions improving the coastal & marine environment, and provide opportunities for people to participate in local environmental monitoring and education activities. The education package includes: coral identification sheets, information leaflets, a virtual reef poster and year 7 curriculum linked science lessons for classroom and in the field. 250 hard copies are printed and you can download these materials from our [website](http://www.coralwatch.org).

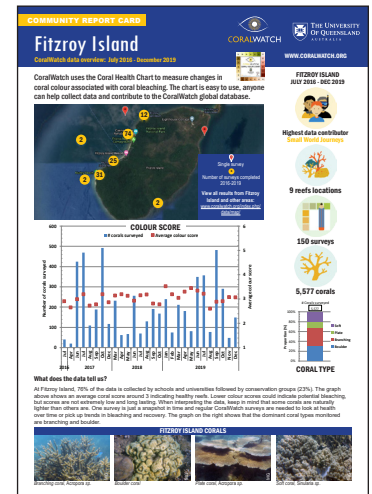
2nd edition: ‘Moreton Bay Corals at your Doorstep - education package’. Includes coral identification sheets, a virtual reef poster, year 7 curriculum linked science lessons and other information leaflets.



Pledge frames ‘I pledge to act and protect our coral reefs’



CoralWatch general info leaflet ‘Act to Protect our Coral Reefs’.
DL format (3-fold A4)



CoralWatch Data overview community report card ‘Fitzroy Island’



Bookmarks ‘Get involved in Citizen Science’

Sustainability Quiz
Saving Reefs from Home

Take all these steps for each category:

- Food**
 - Follow menus and write shopping lists
 - Choose influence
 - Look for bulk and tins
 - Compost food scraps
 - Grow my own fruit, vegetables or herbs
- Plastic**
 - Buy reusable waterbottle
 - Buy at farmers markets
 - Use reusable bag
 - Use plastic bags
 - Buy my own produce - not packaged
- Banish**
 - Buy second hand clothes where possible
 - Wash in better quality items that last longer
 - Support fashion brands that are ethical
 - Recycle our clothes as rags and dusters
 - Never use to repair damaged clothes
- Transport**
 - Take the stairs rather than the elevator
 - Use public transport when can
 - Report where possible
 - Ride a bike whenever I can or walk
 - Have an energy efficient vehicle
- Education**
 - Support organisations working to educate kids in developing countries
 - Grow my recycling footprint
 - Support with the marine environment education
- Energy**
 - Turn off appliances when not in use
 - Use my air conditioner
 - Use less
 - Use fans
 - Use less
 - Use less
- Water**
 - Have less
 - Use my air conditioner
 - Use less
 - Use less
 - Use less
 - Use less
- Coral reefs**
 - Do not eat
 - Use reef
 - Use reef
 - Use reef
 - Use reef
 - Use reef
- Going the extra step**
 - Use reef
 - Use reef
 - Use reef
 - Use reef
 - Use reef
 - Use reef

Did you know?
How to Save Reefs from Home

Every one of us has an ecological footprint. The ecological calculator measures how fast we consume resources and generate waste. Knowing your individual footprint helps you understand your impact on the planet and the Australian government can help you reduce it.

1. Food
Australia, 35% of the average household has a food waste. Food waste sent to landfill produces methane, a greenhouse gas that is 28 times more potent than carbon dioxide. www.environment.gov.au/waste

2. Plastic
We are producing over 300 million tons of plastic every year, 55% of which is for single use purposes - utilized for a few moments, but the planet for several hundred years. More than 8 million tons of plastic is dumped into our oceans every year. Over 80% of all plastics contain plastic. www.environment.gov.au/waste

3. Fashion
Australia is currently disposing of a staggering 800,000 kg of fabric and textile waste every 20 minutes (500,000 tins each year). Annually, the average Australian spends 200 kg of textiles and their discards 23kg into landfill. Two thirds of discards are made from synthetic fibres derived from petroleum that may never biodegrade. www.environment.gov.au/waste

4. Transport
In Australia, after our feed power stations, the second largest source of carbon pollution is the transport sector. Carbon dioxide emissions come primarily from our cars, trucks, ships, trains and planes. In Queensland that transport emissions have doubled since 1995 (1.1 billion litres of fuel) and are projected to double again by 2025 (2.2 billion litres). www.environment.gov.au/waste

5. Education
Education workers are able to seek out alternative opportunities in the education provision where a variety of options, resources, ideas and support are available. We encourage an environment where reduced facility rates are possible. www.environment.gov.au/waste

6. Energy
Australia's electricity sector is the nation's single largest source of greenhouse gas pollution and accounts for one third of greenhouse gas emissions. Improving your energy efficiency at home is a responsible goal. www.environment.gov.au/waste

7. Water
Saving water is another way to fight climate change. Water requires a lot of energy to pump, create, filter, distribute and then use. Reducing the amount of water, reduce the amount of treatment chemicals and energy used to pump water for delivery and end of the disposal is important. www.environment.gov.au/waste

8. Coral reefs
In 30 years, 50% of the world's coral reefs have been lost. The Great Barrier Reef (GBR) has 420 species of hard coral. The main threats to the GBR are coral bleaching, crown of thorns starfish outbreaks and more frequent, severe and intense storms due to climate change. In 2017, the central section of the GBR lost 25% of its coral due to coral bleaching. Learn more about reefs and help collect data, get involved in citizen science. www.coralwatch.org

9. Going the extra step
Global emissions are linked to human consumption behaviour. As humans and global warming, the solution becomes ever more to business and adopting sustainable alternatives is key to slowing the climate change. We encourage an environment where reduced facility rates are possible. www.environment.gov.au/waste

Sustainability Quiz ‘Saving reefs from home’



Colouring-in page ‘I can save reefs from home’



Fridge magnets ‘I will protect Moreton Bay’
4 different versions

Unfortunately all of these activities have been cancelled or postponed due to the coronavirus.



CANCELLED

Capricorn Coast Coral at your Doorstep Teachers' Education Resource Launch

25 March, Flow Centre, Rockhampton
Anticipated outreach: >60 people

World Science Festival - CW displays

19-20 March 2020, Gladstone

Dave, Somone and Lindsey were planning activities for the student day on Friday and general public on Saturday.

26-29 March 2020, QLD Museum, Brisbane

CoralWatch will setup a display with coral skeletons, clay coral reef and our virtual reef at the museum. The event is sustainability focussed and we will be there 4 days (Thu, Fri, Sat, Sun from 9am-5pm and Fri, Sat 5-9pm)

Anticipated outreach: >2,500 people

UQ Experience Science

2 April 2020, year 10 presentation and activities, UQ

Blues Festival - CW display

9-13 April 2020, Byron Bay

Anticipated outreach: >2,000 people

Wynnum Manly Seafood Festival - CW stall

4 May 2020, Manly

Anticipated outreach: >150 people

Ambassador Return Workshop 2020

23-24 May 2020, MBRS, N. Stradbroke Island

We were looking forward to catching-up with you all and sharing your Ambassador experiences. Unfortunately we will have to postpone this event to later in the year. When the time is right, we will use this workshop as a fantastic opportunity to re-connect, re-energise and make new plans.

Look after yourself, stay healthy and cheerful.

The CoralWatch team

Justin, Monique, Karen and Diana

POSTPONED

CW Workshop - Sustainability - Save the Great Barrier Reef from Home / School

3 April 2020, Cooktown

Film shoot for CW 'Come Join our Watch' social media campaign

5 April 2020, Low Isles

Reef Citizen Science Day

6 April 2020, ReefMagic, Moore Reef, Great Barrier Reef

Anticipated outreach: >100 people

Teacher PD 'Act to Protect' Bundaberg

4-6 June 2020, Bundaberg

Anticipated outreach: >15-20 teachers

School holiday program Palm Island

April/May 2020

Sustainability Research and Innovation 2020 Congress

17 June 2020, Brisbane postponed to mid 2021

A public engagement day in collaboration with the Australian Citizen Science Association and other QLD citizen science programs.

International Coral Reef Symposium

5-10 July 2020, Bremen, Germany

New dates: 18 - 23 July 2021

CoralWatch presentation and poster session

TO BE CONFIRMED

World Ocean Film Festival

29 April - 2 May 2020, Brisbane Powerhouse

It takes a spark - education conference

3 June 2020, Toowoomba



Awards night, Ambassador return workshop February 2019

Great ideas by Ambassadors

Rebecca:

- Share education materials on social media, remind schools what CW has available
- Live Feed on Facebook talking about/demonstrating using a CoralWatch chart
- Upload education powerpoints to YouTube
- Keep social media followers engaged by quizzes (including prizes), short videos, basic coral ID services

Amalya:

- Podcast episode on citizen science and CoralWatch. Please contact Amalya to be interviewed.

Melinda:

- Get in touch with the Marine Teachers Association in each state
- Use the CANVAS platform she uses for online teaching
- Organise a remote link-up via Teams or Adobe connect where you can do a video conference to present information yourself to students/groups or even a virtual excursion with your existing videos
- Getting the message out on digital media i.e. Facebook by paying to promote CoralWatch would be the way to go!

Hannah:

- has 2 coral reef related videos that we can share on social media, but are waiting for the authors permission.

Natalie L:

- Natalie is posting a great reef and feel good story on a very regular base on her FB page. We love it, it makes you smile everytime I see it. Natalie, can we share this on our CoralWatch FB/Twitter channels. Is that possible?

CoralWatch:

- Our sustainability quiz should go online. Ideally with a polling option so people can see each others positive actions to help save reefs from home. We could post a question a day with optional answers and option to include your own action. Anyone with experience???

Already in progress

- Bec, Jess and Natalie are helping us to create the newest edition of Corals at your Doorstep - Coral Coast
- Amber is assisting with updating and recording the presentation of the PADI Coral Health Chart distinctive specialty, plus general promotion of the specialty.
- CoralWatch is uploading all 22 videos from the Coral Reefs and Climate Change DVD to our youtube channel to make it available for online teaching.
- CoralWatch started today with a daily post on facebook with links to our CW teaching resources especially virtual lesson and instructions for our database.

Who could help with

Recording of presentations

- Record yourself doing a presentation about a marine/coral related topic wearing a CoralWatch Ambassador shirt. Can be 5, 10 or 30 mins. We can share this via Facebook, Twitter, YouTube etc for people to watch at home and learn. We are also looking for assistance to record our existing presentations.

Online live lessons

- Monique reposted the Reef Relief message from Melinda on our CoralWatch page and this went viral!! Over a million people reached within 24 hours. That is what we want. Can you do better???. Their example is perfect, informative and personal the way they recorded it (<https://www.youtube.com/channel/UCPe46koWucTF1AGfsYi3e6Q>).

Social media posts

- A marine/coral did you know fact or story that we can post on our social media channels.

Game development

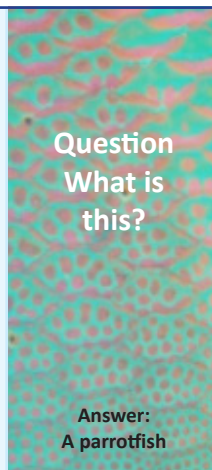
- During our Ambassador workshop in November 2019, several of you were keen to develop a game. Now is the time! Who is keen? Or can help Amber with the development of her idea below.

Game idea by Amber

A game app which could also be used as an engagement tool on social media is to provide an educational game to learn about coral reef ecosystems.

The concept is a close-up picture of a coral, fish, marine species and then the player needs to guess what they are looking at. Once the correct answer is given, the full size image is shown with some interesting trivia about the species and its importance on the reef.

This would be a great tool to train people's eyes to recognise and understand the diversity of life on the reef as well as to teach people the important role of our reef systems.



There are over 30 species of parrotfish on the Great Barrier Reef. Parrotfish have fused teeth shaped like a beak which is how they get their name. Their teeth are harder than copper, gold and silver.

If you love a sandy beach, you can thank a Parrotfish. Parrotfish can turn 1 tonne of coral into sand in a year. Parrotfish eat algae that grows inside coral, munching on large pieces of coral. Parrotfish cannot digest coral and when they go to the bathroom, fine sand-particles exit the parrotfish's body. So every time you're lying on a sandy beach, you're really lying on Parrotfish poo.