



Australian Government  
Great Barrier Reef  
Marine Park Authority



## 2015–16 Eye on the Reef Summary Report

The Great Barrier Reef Marine Park is vast, stretching 2300 kilometres along the Queensland coast in north-eastern Australia.

This World Heritage Area is the world's largest coral reef ecosystem with 2900 coral reefs, 600 continental islands, 300 coral cays and around 150 inshore mangrove islands.

In an area bigger than Italy — with diverse plants, animals and habitats — marine managers and community partners play an active role in monitoring the environment.

Through the Great Barrier Reef Marine Park Authority's Eye on the Reef monitoring program anyone out on the water can collect information on Reef health, animals and incidents.

This data provides Marine Park managers and researchers with up-to-date information on reef health status and trends, species distribution, and early warnings of environmental impacts.

There are four levels of the program, allowing anyone to get involved:

- Eye on the Reef smartphone app — any Reef user submitting photos of marine animals, coral and incidents
- Tourism weekly surveys — tourism staff tracking changes over time at frequently-visited tourist hot-spots
- Rapid monitoring surveys — advanced surveyors using underwater slates to record common marine animals and plants and reef observations
- Reef health and impact surveys — mostly Marine Park rangers and researchers, comprehensively assessing ecosystem health in five-metre radius circles.



## 2015–16 HIGHLIGHTS

### Specialist training

In 2015–16, 233 tourism staff from 19 operations learnt how to conduct weekly site monitoring at classroom and in-water training in Cairns, Port Douglas and the Whitsundays.

Over the year, 14 staff from 11 tourism operations regularly took part in weekly monitoring.

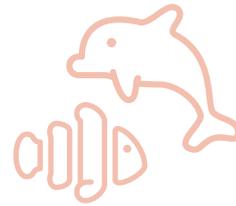
Tourism staff are valuable contributors — they have intimate knowledge of the areas they visit, often daily, and can detect changes at frequently-visited tourist hot-spots.

### Snapping sightings

There were 2276 sightings of iconic marine species submitted through the Eye on the Reef smartphone app in 2015–16.

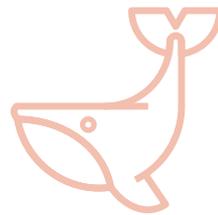
During the year new functionality was added to the app, enabling users to report coral bleaching and crown-of-thorns starfish.

These functions provided early warning triggers of outbreaks and bleaching and guided management actions.



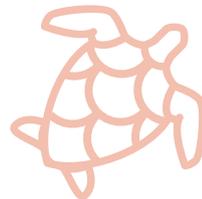
2276

sightings of iconic  
marine species



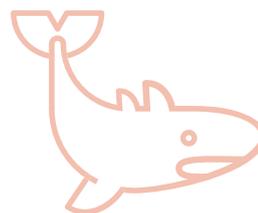
245

humpback  
whales



208

green turtles



11

whale sharks



## Monitoring bleaching

Between February and June 2016 Great Barrier Reef Marine Park Authority staff, Queensland Parks and Wildlife Service rangers, researchers and volunteers completed 2436 reef health and impact surveys during the worst coral bleaching on record.

In this time, 211 coral bleaching sightings were submitted to the Eye on the Reef app via new functionality that enables users to report bleaching.

Users submitted information on signs of bleaching including where none was evident, helping Marine Park managers estimate the extent and severity of bleaching.

## Controlling predators

In 2015–16 work continued on controlling the coral-eating crown-of-thorns starfish to protect coral cover on key reefs including tourism sites.

This year, functionality of the Eye on the Reef smartphone app was also expanded to enable users to report crown-of-thorns starfish sightings.

The control team went on 24 voyages and completed 1381 reef health and impact surveys to measure coral cover and determine the effectiveness of control efforts.

There were 70 sightings of crown-of-thorns starfish reported through the app, complemented by data collected through reef health and impact surveys across the Marine Park.

This data helps managers estimate densities of starfish outbreaks and guides resilience-based management actions such as controlling crown-of-thorns starfish to support coral recovery.



**THE CONTROL TEAM WENT ON 24 VOYAGES, COMPLETED 1381 REEF HEALTH AND IMPACT SURVEYS TO MONITOR CORAL COVER, AND ERADICATED MORE THAN 28,000 CROWN-OF-THORNS STARFISH FROM 48 REEFS.**

## COLLABORATIVE RESEARCH

Data collected through the Eye on the Reef program informs reef health incident response, resilience mapping and water quality actions.

In 2015–16 Eye on the Reef data contributed to:

- An Australian Institute of Marine Science evaluation of the crown-of-thorns starfish control program which indicated that culling has maintained coral cover on high priority reefs in the Cairns region.
- A Griffith University study into cross-referencing social media posts with data to develop a monitoring system
- A Miami University study exploring the extent of coral disease between Marine Park zones.



# 5214

surveys at 270 reefs by 139 individuals or organisations



# 4307

reef health and impact surveys



# 253

rapid monitoring surveys



# 654

tourism weekly surveys at 24 regular sites

### Further information

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 [www.gbrmpa.gov.au](http://www.gbrmpa.gov.au)

     #LoveTheReef

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