



# VISIONING THE CORAL SEA MARINE PARK



## #VisioningCoralSea

04/29/2020 - 06/15/2020  
Cairns, Australia  
Dr. Robin Beaman

James Cook University, The University of Sydney, Geoscience Australia, Queensland Museum, Museum of Tropical Queensland, Biopixel, Coral Sea Foundation, Parks Australia

## Expedition Objectives



### Geological Evolution Insight

To collect visual data to allow the understanding of the physical and temporal changes that have occurred historically on the Queensland Plateau.



### Mapping Seafloor

To map, in detail, the steeper reef flanks using high-resolution multibeam mapping.



### ROV Expedition

To document deep-sea faunas and their habitats, as well as the biodiversity and distribution patterns of these unexplored ecosystems. Additionally, the ROV dives will help to determine the extent and depth of coral bleaching.

Within Australia's largest marine reserve, the recently established Coral Sea Marine Park, lies the Queensland Plateau, one of the world's largest continental margin plateaus at nearly 300,000 square kilometers. Here a wide variety of reef systems range from large atolls and long banks to shallow coral pinnacles. This region is virtually unmapped.

This project addresses a range of priorities of the Australian Government in terms of mapping and characterizing a poorly known frontier area of the Australian marine estate.

The seabed mapping of reefs and seamounts in the Coral Sea Marine Park is a high priority for Parks Australia, the managers of Australia's Commonwealth Marine Parks. The new multibeam data acquired will be added to the national bathymetry database hosted by Geoscience Australia and released through the AusSeabed Data Portal.


We celebrated World Ocean Day during the expedition with a livestream bringing together Falkor's crew with scientist, students, and athletes to share their ocean experiences.



**+13K**   
km travelled

**14**   
ROV dives

**1<sup>ST</sup>**   
fully remote  
science team

**4**   
new drowned  
reefs found

Information from the ROV imagery, such as new species or range extensions, will be added to the living resources databases managed by the Australian Government and made publicly available. Parks Australia will utilize the derived information to communicate the important environmental values of the Coral Sea Marine Park to the broader community.

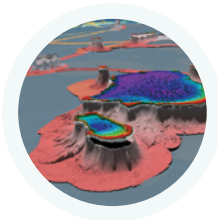
The information from this research is likely to be of great interest to the general public, who were widely consulted on the zoning and activities prior to the nearly 1 million square km Coral Sea Marine Park being declared in 2017 – the largest Marine Park in Australia.

Having 4K-resolution underwater video imagery of the deeper reef environments of the Coral Sea, allows us to tell the full story of the interconnected environments of the Coral Sea. This vision is invaluable for educational, social and mainstream media platforms.



### **+35,554 KM<sup>2</sup> WERE MAPPED**

with high-resolution multibeam depth data, an area larger than half the size of Tasmania. The depths mapped ranged from 2800m to 80m.



### **NEW MAPPING REVEALS COMPLEX SEAFLOOR**

including submarine canyons, dune fields, submerged reefs, underwater landslides, and huge debris blocks scattered around the periphery of the reefs.



### **10 NEW MARINE SPECIES**

were observed, as well as new significant range extensions for fishes in the genus *Odontanthias Hollardia Bodianus* Roa.