

## Pioneering ocean survey launched on the Reef

A pioneering scientific expedition that will document the health of coral on the Great Barrier Reef will be undertaken as a joint venture between [Google](#), the University of Queensland's [Global Change Institute](#), not-for-profit organisation [Underwater Earth](#) and insurance company [Catlin](#).



Credit: Catlin Seaview Survey

The [Catlin Seaview Survey](#), launched in Singapore recently, aims to carry out the first comprehensive study of the composition and health of Reef coral to an unprecedented depth range (0–100m). The expedition will begin on the Great Barrier Reef in September 2012.

The project's chief scientist, Professor Ove Hoegh Guldberg from the Global Change Institute, said the scientific data gathered would strengthen the understanding of how climate change and other environmental changes are likely to affect ocean ecosystems like the Great Barrier Reef.

Professor Hoegh-Guldberg said the survey was not just another scientific expedition; it 'aimed to capture the public's imagination and engage people with the science like never before'.

The Catlin Seaview Survey camera, developed specifically for the expedition, will capture thousands of 360-degree underwater panoramas. When stitched together, these will allow people to choose a location, dip underwater and go for a virtual dive at all of the locations visited by the expedition.

Google is collaborating with the Catlin Seaview Survey and is working on a new feature on [Panoramio](#) (which links photos to locations), so that the 360-degree panorama images can be uploaded and made available online. Approximately 50 000 panoramas from the survey will eventually be accessible.

The project also will have a dedicated [YouTube channel](#) and the ability to broadcast, which will allow people to watch

the expedition team live from the ocean floor.

The Catlin Seaview Survey will include a shallow reef survey, a deep reef survey and a megafauna survey. Combined, these will provide a baseline assessment of the composition, biodiversity and wellbeing of the Reef.

The Shallow Reef Survey will use a custom-designed underwater vehicle with a 360-degree camera to enable a rapid visual census of corals, fish and many other organisms. This will provide a broad-scale baseline for understanding climate change on coral reefs.

The Deep-Water Survey will use diving robots to explore the reef at depths of 30-100 metres. Little is known of this region, yet it may hold some of the answers to whether or not the coral reefs will survive rapid climate change.

The Mega-Fauna Survey team, led by Emmy award-winning cinematographer and shark researcher Richard Fitzpatrick, will use satellite tags to study the migratory behaviour of tiger sharks, green turtles and manta rays in response to increasing seawater temperatures.

The Catlin Seaview Survey is sponsored by Catlin Group Limited, an international insurance and reinsurance company.

Source: University of Queensland

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