

CSIRO IS PROUD TO ANNOUNCE

# GREENHOUSE 2011

THE SCIENCE OF CLIMATE CHANGE

## GREENHOUSE 2011 Technical Tour WEDNESDAY 6 APRIL

Climate change and the Great Barrier Reef  
Port Douglas to Agincourt Reef

Leaders: Dr Will Howard, Office for the Chief Scientist  
Dr Bronte Tilbrook, CSIRO Marine and Atmospheric Research

### Itinerary:

- |             |  |
|-------------|--|
| 08:00       | Coaches depart Cairns to Port Douglas  |
| 09:30       | Arrive at Marina Mirage Port Douglas & board<br>Complimentary tea and coffee served on board until departure               |
| 10:00       | Depart for Agincourt Reef  |
| 10.45       | Presentation by Will Howard<br>Ocean Acidification Impacts: Lessons from the laboratory, the modern ocean,<br>and the past |
| 11:30       | Arrive at Agincourt Reef<br>Time to examine the reef through snorkelling and semi-submersible tour                         |
| 12:00-13:30 | Buffet lunch served  |
| 14:45       | Re-board for passenger counts  |
| 15:00       | Depart Agincourt Reef  |
| 15.45       | Presentation by Bronte Tilbrook<br>Title to be advised   |
| 16:30       | Arrive Port Douglas  |
| 16:55       | Coaches depart for Cairns  |

**Bring:** hat, sunscreen, sunglasses, swimmers.

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## TOUR LEADERS



**Will Howard** is a research scientist currently at the Office of the Chief Scientist in Canberra.

He works on marine climate change, with particular emphasis on ocean acidification and its impacts on the past, current, and future ocean. He is particularly interested in the ocean carbon cycle and the responses of marine ecosystems to climate change. His work focuses on the insights into climate change that can be inferred from ocean sediment records as a baseline for pre-industrial conditions and as a tool for understanding the impacts of large-magnitude climate changes of the scale anticipated in the coming centuries. His expertise is in palaeoecology and low-temperature isotopic geochemistry.



**Bronte Tilbrook** is an oceanographer involved in research on the ocean carbon cycle. He completed a doctorate in chemical oceanography at the University of Hawaii on the production and consumption of trace gases in the surface mixed layer of the ocean. His research now involves characterising and understanding the major drivers of ocean CO<sub>2</sub> uptake and storage, and determining how ocean acidification is evolving.

He is based at CSIRO in Hobart and his research emphasis is on the Southern Ocean and Australian regional seas, including the Great Barrier Reef and Coral Sea regions. The work uses a variety of ship and moored platforms to determine the air-sea exchange of CO<sub>2</sub> and carbonate chemistry, and deep-ocean sections to trace the storage and uptake pathways of anthropogenic carbon into the ocean interior.

He has participated in more than twenty research cruises in the Indian, Pacific, Atlantic and Southern Oceans, including submersible work on deep ocean vents.