New Observations of Coastal Erosion with Climate Change

New observations of increased coastal erosion indicate the influence of climate change.

Results from Roches Beach, Tasmania, show that during the 1970's the beach changed from being stable to progressively receding. "What we have seen over the last few decades conforms with what we would expect to see as a beach begins to respond to global sea-level rise" says Chris Sharples, the principle researcher on the project.

"The broader significance of this work is that it deepens our understanding of which beaches are responding earliest to sea-level rise by receding. This research will help us to identify other Australian beaches most at risk. This is crucial in developing strategies for adapting to sea-level rise on the Australian coast".

The study was conducted using historical air and satellite photos at Roches Beach since 1957. “Although progressive erosion at Roches Beach during the 1970’s to the 1990’s was still partly masked by natural rebuilding, it has now been in a persistently erosive state since at least 2001, and this is a significant departure from earlier conditions” said Sharples. "The only known process which can explain the changed behaviour of Roches Beach in recent decades is sea-level rise".

"While many Australian beaches are not yet obviously receding, more will begin to do so as a result of further sea-level rise. Roches Beach is one which is clearly receding now. The results of this study therefore add to a growing understanding of which types of shorelines are most sensitive to sea-level rise" said Sharples.

Further research of this type around Australia will provide valuable information about the locations which are most vulnerable to sea-level rise.

Event details

The full report ‘Shoreline Change at Roches Beach, South-Eastern Tasmania, 1957 – 2010’ will be released at a media event at the Hobart Function and Convention Centre, Elizabeth Street Pier, Hobart. A downloadable version of the report will also be made available on homepage of www.acecrc.org.au (under ACE CRC news). Photos available.

ACE Media Enquiries:

Chris Sharples 0408 396 663
Tessa Jakszewicz 0419 116 715 or 03 6226 7652
Backgrounder

The ACE CRC is a unique collaboration between core partners the Australian Antarctic Division, CSIRO, the University of Tasmania, the Australian Government’s Department of Climate Change & Energy Efficiency, the Alfred Wegener Institute for Polar and Marine Research (Germany) and the National Institute of Water and Atmospheric Research Ltd (New Zealand) and a consortium of supporting partners. It is funded by the Australian Government’s Cooperative Research Centre Program.

The ACE CRC’s mission is to understand the crucial role played by Antarctica and the Southern Ocean in global climate, and the impacts of climate change on Australia and the world, and to inform governments, industry, the community and scientists about climate change to guide our future.