

Research shows Australian weather could get worse

June 20 2007

Research by University of Queensland climatologists into Australia's past climate has shown just how extreme our weather can be.

Dr Hamish McGowan, a senior lecturer in climatology with UQ's School of Geography, Planning & Architecture, has been using peat samples from North Stradbroke Island to reconstruct a picture of what Australia's climate has been like over the past 40,000 years.

The record has a resolution comparable to those of Antarctic ice cores offering a unique insight to the past climates of South-East Queensland.

"People talk about Australia being in the worst drought in 100 years," Dr McGowan said.

"But what the evidence is showing us is that in the last 5000 years South-East Queensland has been much drier than at present.

"We see periods of increased aridity that were marked by more frequent west to south-westerly winds and cooler temperatures."

He said the research also showed Australia was not immune to climate changes in the rest of the world.

"We have found evidence of all the major climate events from both the northern and southern hemispheres," he said.



"We have to be aware that we are not disconnected from what is happening elsewhere."

Dr McGowan said the research showed direct evidence of the affect of Heinrich events when huge volumes of cold freshwater entered the North Atlantic Ocean during the glacial disrupting ocean circulation and in-turn global climate.

"It is likely that should similar events occur due to global warming and melting of the Greenland and Antarctic ice sheets, then our weather in Queensland would be affected," he said.

Dr McGowan said the most surprising result from the study was how quickly the climatic condition could change.

"It has been assumed that some changes have taken place over centuries," he said.

"But we have seen very rapid changes in the environment of southeast Queensland in 30 to 60 years in response to global climate events."

The study used the peat samples to isolate layers of dust, which are then matched to where they have come from in Australia.

"The dust from all over the country goes up into the atmosphere and is blown by winds to eventually land in another place such as North Stradbroke Island," he said.

"We have spent the past four years matching where the dust has come from to an accuracy of 200km. This has allowed us to reconstruct weather patterns associated with dust transport and how they have changed.



"This work fills a significant gap in our understanding of this country's ancient climate."

Source: University of Queensland

Citation: Research shows Australian weather could get worse (2007, June 20) retrieved 28 April 2024 from <u>https://phys.org/news/2007-06-australian-weather-worse.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.