Australian Meteorological & Oceanographic Society

S.A. Branch - Scientific Talk

Announcement

Time and place: Bureau of Meteorology offices at the corner of King William St. and Sth. Tce. (4th floor), at 6:30 p.m. on Thursday 31 August 2017.

Past climate variability in south-eastern Australia: progress and potential from sediment archives

Dr Jonathan Tyler, The University of Adelaide

"Records of past climate which span decades through millennia are crucial for establishing baseline climate variability to place modern and future change in context. Such records provide new insights into the drivers of long term regional climate change and help constrain the probability of climate extremes. Our understanding of long term climate variability stems from a range of natural archives, including tree rings, cave stalagmites and lake sediments. Each of those natural archives carries inherent idiosyncrasies and uncertainties which limit the direct interpretation of climate parameters such as temperature and rainfall. Furthermore, despite decades of research, high quality archives of Australian past climate variability are scarce, with a pressing need for new records with improved dating and temporal resolution. Here I will discuss recent attempts to address these challenges through a series of case studies, including new records from lake and wetland sediments, regional syntheses of past climate data, novel approaches to the numerical analysis of such data and contemporary process studies aimed at modelling and calibrating past climate proxies."

Bio: Dr. Jonathan Tyler is a palaeoclimatologist, isotope geochemist and lecturer in the Department of Earth Sciences, University of Adelaide. His research involves developing the tools used to reconstruct past climates and biogeochemical cycles through field and experimental studies on modern systems. Recently, his focus has been on the last 2000 years of climate variability in southern Australia and on the period known for the end of the last ice age (the last 50,000 years). He continues to work on projects in Antarctica, Japan and the United Kingdom. Jonathan came to Adelaide having held research fellowships at the universities of Melbourne, Oxford and Tokyo. He obtained his PhD at University College London.

There will be a person at the door to let people into the offices until 6:30 p.m.

For more details, contact Murray Hamilton, chair of the AMOS South Australia branch (murray.hamilton@adelaide.edu.au). If there are issues with access on the night, please phone 0478 453 642.