PhD SCHOLARSHIP OPPORTUNITY

RECONSTRUCTING SOUTH-EASTERN AUSTRALIAN CLIMATE VARIABILITY SINCE 1788 USING EARLY INSTRUMENTAL DATA

An opportunity exists at the University of Melbourne for a PhD candidate to consolidate and extend our understanding of Australia’s pre-20th century climate through recovering and rehabilitating early instrumental observations. We are looking for a highly motivated PhD candidate to analyse early instrumental data for south-eastern Australia as part of a broader Australian Research Council (ARC) Linkage project. This landmark project brings together a team of Australia’s leading climate scientists, water managers and historians with the common goal of reconstructing south-eastern Australian temperature, rainfall and atmospheric pressure over the past 200–500 years using palaeoclimate, documentary and early instrumental data.

The PhD project will involve ‘rescuing’ meteorological observations from 1788 to 1860 from a variety of sources, quality controlling and homogenising these observations, and analysing the results using state-of-the-art statistical techniques. Data accessed during this project will help develop the longest running instrumental climate records in Australia, providing us with a foundation for assessing climate variations in south-eastern Australia over the past 200 years. These extended records of temperature, rainfall and atmospheric pressure variability will allow better planning for water storage and improved testing of climate model simulations.

This prestigious Australian Postgraduate Award Industry (APAI) award includes an annual tax-free scholarship of $26,140 and additional research support funding of $6,000 per year. It will provide the candidate with an outstanding research project with direct industry linkages, including the Australian Bureau of Meteorology, Murray Darling–Basin Authority, Melbourne Water and the UK Met Office. To be considered for this position you should have:

• First class honours science degree (e.g. meteorology, physical geography, atmospheric science)
• Demonstrated knowledge and experience using climate data
• Demonstrated ability (or clear potential) to liaise, collaborate and interact with a range of scientists and industry professionals
• Capacity to work independently while contributing to core project objectives
• Outstanding written and oral communication skills
• Skills using a range of computer software eg. Office, specialised scientific programs, statistical packages, online content management systems and databases
• Australian or New Zealand citizenship or be an Australian permanent resident and not be receiving similar funding from a commonwealth government program
• Availability to commence this full time opportunity no later than 1 March 2010

To apply for this position, please forward your curriculum vitae and complete academic transcript, together with a one page statement on why you want to undertake graduate study in this project, no later than Friday 16 October 2009 to Professor David Karoly (dkaroly@unimelb.edu.au) and Dr Joelle Gergis (jgergis@unimelb.edu.au).