89

Geomorphic evidence for periodic easterly rainfall on the Australian east coast during the last glaciation

***Adrian Slee[1] , Peter McIntosh[2] , James Shulmeister[1] , Timothy Barrows[3]**

1. *University of Queensland, Brisbane, Queensland*
2. *Forest Practices Authority, Hobart, Tasmania*
3. *University of Exeter, Exeter, United Kingdom*

Since the 1960s the consensus is that eastern Australia was significantly drier and colder during the last glaciation than under the current prevailing climate. However, recent studies of landforms in New England in northern NSW and northeast Tasmania suggest that not all of eastern Australia was drier than at present during the last glaciation the distribution of block streams and a possible pro-nival rampart in northern New England potentially indicate an enhanced moisture and /or precipitation zone on and east of the Great Divide. Further south the age and morphologic characteristics of extensive landslides on the Nicholas Range in northeast Tasmania indicates significant mass movement linked to likely enhanced soil moisture and precipitation during stages OIS 2, 3 and 5b. A prominent paleosol within dune sands at Dunlin near Bridport in northeast Tasmania, dated to the last glacial maximum (oxygen isotope stage 2), lends further support to the proposition that there were periods of substantially increased precipitation along the eastern seaboard of Australia during the last glaciation.

90

The LGM in eastern Australia - an overview

Jamie Shulmeister[1] , Craig Woodward[1] , Jie Chang[1] , Adrian Slee[1]

1. *University of Queensland, St Lucia, QLD, Australia*

This paper will examine evidence for conditions in eastern Australia at the LGM and argue that a sub-humid to humid zone was maintained along the east coast, most likely extending all the way from the tropics to Tasmania. The existence of a sub-humid zone helps reconcile clear evidence of drier conditions west of the divide with mounting evidence of available moisture in LGM rivers and along the divide. It is also consistent with background conditions including strong summer insolation and the maintenance of the East Australia Current at the LGM.