We are very pleased to announce that the first TARL seminar of 2024 will be presented by **Distinguished Professor Michael Bird**.

Title: **A 150,000 year record of monsoon intensity from northern Australia; The context for first arrival in Sahel.**

Friday 8th March. Zoom link:
https://jcu.zoom.us/j/86129107536?pwd=UEN0NGNULy9ZMHhDVG1wWVdUYXhJUT09&from=addon Password: 174247

Abstract:

Multiple glacial-interglacial terrestrial records of east Asian monsoon variability have been developed, but there are no terrestrial records of equivalent length for the coupled Indo-Australian monsoon at the southern monsoon limit — Australia. This talk presents a continuous, absolute-dated, 150,000-year record of monsoon dynamics from a permanent lagoon in the core monsoon region of northern Australia. We show that Australian rainfall is broadly anti-phased with the East Asian monsoon. We also identify periods of intense monsoon activity associated with high local insolation in Marine Isotope Stage 5 during 'megalake' phases in Australia's arid interior. We also identify short-lived periods of monsoon intensification that are associated with Heinrich events and coincide with weak monsoon events in East Asia. The results suggest that the Australia's earliest inhabitants experienced, and adapted to, multiple, major, short-lived periods of intense monsoon rainfall, between dry episodes, even during Marine isotope stage 2. The results further suggest that strong asymmetry in inter-hemispheric monsoon rainfall might accompany the current weakening in the strength of the Atlantic meridional overturning circulation. This asymmetry will involve drying in the heavily populated regions north of the equator, and intensification of rainfall in northern Australia.