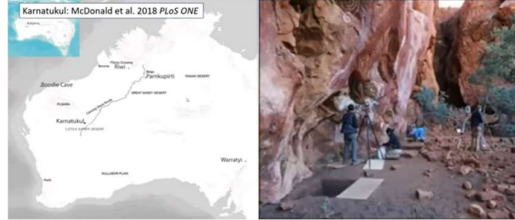


We are pleased to announce a funded Ph.D. scholarship opportunity at the University of Waikato: **“At the limit: ^{14}C dating the Aboriginal occupation of Australia.”**

Supervisors

A/Prof Fiona Petchey (University of Waikato) and A/Prof Michael Mucalo (University of Waikato).



We are seeking expressions of interest from potential Ph.D. candidates to investigate the chemical composition and properties of pyrogenic carbon (“charcoal”) dating close to the upper limit of radiocarbon (^{14}C) measurement (20,000 to ~50,000 years BP).

Over the last decade, there has been an increased number of Australian sites with evidence of human activities dating > 45,000 years BP. The likelihood of the early settlement of the Australian deserts raises questions about the drivers and expansion rates. The accuracy of any ^{14}C date depends on the effective separation and purification of autochthonous carbon. This project will expand the quality assurance parameters currently available by assessing a range of chemical characterisation methodologies to investigate potential sources of contamination that affect the ^{14}C analysis. This Ph.D. is part of a larger Australian Research Council-funded project led by Prof. Peter Veth (University of Western Australia) exploring the settlement of the Western Australian desert.

The candidate will be based at the University of Waikato, and the project will involve periods of intensive laboratory work and data processing of samples sourced from stored archaeological collections and ongoing fieldwork. The candidate will also work closely with Dr. Nathan Jankowski at the OSL laboratory at the University of Wollongong. Applicants with a background in chemistry or environmental science will be considered. Ideal candidates will be highly motivated, curious, and innovative and have strong communication and teamwork skills.

Interested applicants should discuss this opportunity with A/Prof Fiona Petchey (fpetchey@waikato.ac.nz). For more information on undertaking Ph.D. research at Waikato University, visit <https://calendar.waikato.ac.nz/regulations/higher/phd>. Applications will remain open until the position is filled.