

Funded MSc project

“Stratigraphy, sedimentology and geochemistry of the Waipara Greensand”

Preferred start date – 2nd half 2023 or early 2024

Funding – stipend of \$22k and UC enrolment fees covered at the NZ domestic rate.



This MSc research is within the Marsden-funded project “Avian diversity in the aftermath of the Cretaceous-Paleogene (K/Pg) mass extinction: Zealandia as a hub for the evolution of marine birds”. The goal of this project is to extend understanding of the early evolutionary history of modern marine birds. The funded Masters project will correlate the stratigraphy of the sections the fossils have come from, and use sedimentology and geochemistry to help determine the environmental settings these birds lived in.

What you will do – Field work to measure, describe and sample a section of the Waipara Greensand in which many bird fossils have been found. In the lab you will investigate sedimentary petrology and geochemistry (XRF) of these glauconitic sandstones, sample for microfossils and undertake organic geochemistry studies (eg TEX86, BIT index, $\delta^{13}\text{C}_{\text{org}}$ isotopes) to determine sea temperatures and productivity.

Your background – you will have a BSc (Hons) in Geology or have completed a PGDipSci in geology, with an interest in palaeontology and sedimentary geochemistry.

You will be based at the University of Canterbury in Christchurch and also collaborate with GNS Science in Wellington.

Contact catherine.reid@canterbury.ac.nz for more information