

## HONOURS PROJECT

**Project Title:** Interpreting Holocene mammal biodiversity and abundances in the Cape Leeuwin-Naturaliste region

**Supervisor(s):** Dr Alison Blyth (Curtin), Dr Joe Dortch (Dortch-Cuthbert Heritage Futures), Dr Kenny Travouillon (WA Museum)



Photo courtesy of J. Newman-Martin

**Project:** South-western Australia (SWA) is one of two global biodiversity hotspots on the Australian continent. It is home to internationally iconic species, and environments that are ecologically and culturally unique. However, compared to similar environments elsewhere, its environmental history is under-researched. This project will use previously unstudied Holocene to historical mammalian bone material excavated from caves and rock-shelters in the Cape Leeuwin – Naturaliste region to reconstruct faunal biodiversity and changes in mammalian ecosystems through time. The student will be jointly hosted by Curtin and the WA Museum, and will learn techniques in faunal identification and taxonomic assessment from bones and teeth for a wide range of mammals. The student will then carry out an in-depth analysis, interpreting past ecological changes based on indicator species and faunal abundance. The project has potential for extension to an MRes or PhD project, and is ideal for a student interested in the connection between past and present ecosystems.

**Funding:** All materials and equipment needed for study are available. The student may need to provide their own laptop.

**Special requirements:** This study will involve regular work at the WA Museum Collections and Research Centre in Welshpool, Perth.

### References:

Faith et al., 2017. Large mammal species richness and late Quaternary precipitation change in SW Australia. *Journal of Quaternary Science*, 32, 760-769.

<https://onlinelibrary.wiley.com/doi/am-pdf/10.1002/jqs.2888>

McDowell et al., 2022. Climate change without extinction: Tasmania's small-mammal communities persisted through the Last Glacial Maximum – Holocene transition. *Quaternary Science Reviews*, 291, 107659.

<https://doi.org/10.1016/j.quascirev.2022.107659>