

## **SHeMax: The Last Glacial Maximum in the Southern Hemisphere**

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The SHeMax project seeks to develop a greater understanding of the timing and nature of the LGM in the Southern Hemisphere. In order to achieve this, proxy data archived in marine and terrestrial records from different settings in the Southern Hemisphere will be analysed for the period 35-15 kyr BP, encompassing the termination of the last glacial cycle, and the traditionally-accepted timing of the global LGM (~24-18 kyr BP). Emerging evidence suggests that instead of being a relatively short event centered on 21 kyr BP, the LGM in the Southern Hemisphere may have been an extended period of time, with an early onset at 35-30 kyr BP. It has also been suggested that the LGM was not uniformly cool and dry, but may have been characterized by millennial-scale variability. In this project, records from high-resolution marine and coastal sediments, lake sediments, speleothems, ice cores, glacial moraines, dunes and fluvial systems will be compared to produce a synthesis of climatic variability and explore the premise of an extended LGM in the Southern Hemisphere. The spatial focus will be ~20-80oS, which will allow investigation into teleconnections between the mid- and high-latitudes. In addition to the synthesis of environmental conditions, we will suggest drivers and/or triggers of climatic variability. A significant component of the SHeMax project is the comparison of proxy data with model simulations for the LGM e.g. PMIP, SynTRACE-21. The project will also investigate the response of humans during the LGM to climatic variability, in terms of settlement, migration and cultural development. We welcome anyone who would like to be involved in this project.