

06/06/2018 Aula C h.15.00

The speleothem record of the Younger Dryas termination

The Younger Dryas (YD) termination ~11.6 thousand years ago marked the transition to the present Holocene interglacial, and was associated with large-scale reorganisation of ocean and atmospheric circulation patterns. As an abrupt climate event, it is an interesting target for testing climate models so that more confident forecasts of future abrupt change can be made. The geographic reach of the YD termination is not known with certainty, and recent work suggests that the tropical climate response took three to five times longer to play out compared to the rate of warming recorded in Greenland ice cores. In this talk, a comparison of Greenland and Antarctic ice-core data with new and existing high-quality speleothem (stalagmite) time series shows that the climate effects of the YD termination were ~synchronous over an area extending from the Northern Hemisphere high-latitudes to the Southern Hemisphere tropics, and that the tropical response was just as abrupt as the changes preserved in Greenland ice

Professor Russell Drysdale

School of Geography, The University of Melbourne

Russell Drysdale is Associate Professor and Reader in the School of Geography at the University of Melbourne. His research involves the use of geochemical tracers preserved in cave carbonate deposits (stalagmites) to reconstruct past climate changes, with a particular focus on the timing, forcing and geographic expression of major climate events.

