Aurora Basin North (ABN) – a new 2000 year ice core record from East Antarctica

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Southern Hemisphere climate reconstructions are limited by quantity and spatial coverage of well resolved paleo-climate records from the last 2000 years. This was the motivation to drill an ice core at a new site in East Antarctica, 550km inland and about half way between the coastal Law Dome and inland Dome C sites. Drilling of a 303m ice core was completed in Jan 2014 and here we present the first results from the top 80m of this new ice core. The ABN project is focussed on understanding the variability over the last 2000 years of a range of climate parameters including, temperature, snowfall, volcanic forcing, solar forcing, greenhouse gas forcing, sea ice extent, atmospheric variability (ENSO, SAM, IPO), dust sources from Australia, and biomass burning events.