Integrated stratigraphy of the Eocene Wilkes Land Margin, Antarctica; preliminary results from IODP Expedition 318: dinoflagellate cyst and TEX$_{86}$ results

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IODP Leg 318 recovered sediment cores from the Antarctic Wilkes Land Margin dating back into the early Eocene, the warmest time interval of the Cenozoic era. These cores provide an insight into environmental dynamics of an ice-free Antarctica. The onboard and postcruise studies have resulted in a well-constrained age model, and the multidisciplinary biogeochemical and micropaleontological data allows detailed paleoecological interpretations.

Here we present the results of a high resolution TEX$_{86}$ and dinocyst study on the Eocene recovered at IODP Site U1356. We evaluate sea level, sea surface temperature and productivity fluctuations and put the record of dinocyst endemism in the context of the regional tectonic evolution of the Australo-Antarctic continental breakup.