

Preliminary report of IODP Expedition 378: South Pacific Paleogene Climate

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International Ocean Discovery Program Expedition 378 “South Pacific Paleogene Climate” was conducted from January to February 2020. The major objective of this expedition was to recover a continuous sedimentary sequence to reconstruct the paleoceanographic and paleoclimatologic records during the Paleogene in the high latitude of the South Pacific Ocean, with particular emphasis on the key events including the Eocene-Oligocene Transition, Middle Eocene Climatic Optimum, Early Eocene Climatic Optimum, Eocene hyperthermal events, and the Paleocene-Eocene Thermal Maximum. We drilled five Holes at Site U1553, located at 1,221 meters of water depth on the southern Campbell Plateau, south of New Zealand [1]. Site U1553 builds on the legacy of Deep Sea Drilling Project Site 277, a single, partially spot cored hole, providing a unique opportunity to refine and augment existing reconstructions of the Paleogene climate history [1]. In the presentation, we will introduce an overview of the expedition as well as the preliminary report of Site U1553, mainly focusing on the lithostratigraphy.

[1] Thomas, D.J., Röhl, U., Childress, L.B., and the Expedition 378 Scientists, 2020. *Expedition 378 Preliminary Report: South Pacific Paleogene Climate*. International Ocean Discovery Program.
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