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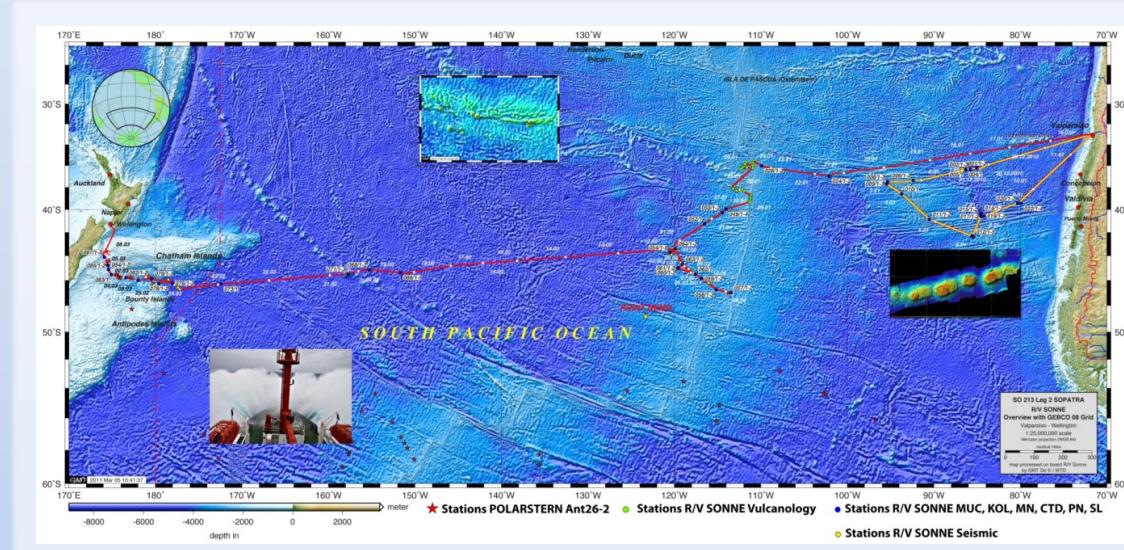
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# SOPATRA (South Pacific Transect)

Although the Southern Ocean represents a key component for understanding the processes of past climate variability, its largest region - the South Pacific - forms a blank spot on our paleoceanographic maps.



The **aim of our project** is to reconstruct changes in atmospheric and oceanic circulation patterns in the South Pacific over the Plio/Pleistocene. The sediment retrieved during the **SOPATRA SO-213** cruise from Chile to New Zealand in 2010/2011 with R/V SONNE enable us to reconstruct changes in temperature, salinity, vertical stratification of water masses as well as changes in plankton productivity.



- Tapia, R., Nürnberg, D., Ronge, T., Tiedemann, R. (2015) *Earth Planet. Sci. Letters* 410, 152-164, doi:10.1016/j.epsl.2014.11.031.
- Ronge, Th., Steph, S., Tiedemann, R., Prange, M., Merkel, U., Nürnberg, D., Kuhn, G. (2015) *Paleoceanography* 30, doi:10.1002/2014PA002727.
- Molina-Kescher, M., Frank, M. and Hathorne, E. C. (2014) *Geochemistry, Geophysics, Geosystems*, 15 (9). pp. 3502-3520. doi: 10.1002/2014GC005443.
- Molina-Kescher, M. (2014) Doctoral thesis/PhD, Christian-Albrechts-Universität, Kiel, 160 pp
- Molina-Kescher, M., Frank, M. and Hathorne, E. (2014) *Geochimica et Cosmochimica Acta*, 127 . pp. 171-189. doi:10.1016/j.gca.2013.11.038.