

## Sea-level changes around the Last Glacial Maximum based on large benthic foraminiferal assemblages: IODP Exp.325

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The shelf edge of the Great Barrier Reef was cored during the Integrated Ocean Drilling Program (IODP) Expedition 325 Great Barrier Reef Environmental Changes. Lower parts of cores drilled on deeper shelf slopes, consisting mainly of unconsolidated carbonate sediments, may record sea-level changes around the Last Glacial Maximum (LGM). The purpose of this study was to reconstruct sea-level changes around the LGM, based on large benthic foraminiferal (LBF) assemblages.

Grain-size and foraminiferal analyses were conducted for 64 unconsolidated sediment samples from the lower parts of cores drilled at HoleM0040 and M0041 on the HYD\_02A transect. Paleo-water depths were estimated by comparisons of fossil LBF assemblages with modern LBF assemblages. LBF assemblages in these two cores were dominated by *Operculina* sp. and *Amphistegina* spp. Relative sea-level changes based on the paleodepth estimations were generally consistent with reported sea-level changes around the LGM.