



Holocene sea level change along the coasts of China and South China Sea

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This research reconstructed the Holocene sea-level history in China and South China Sea (between the equator and 40°N) by reviewing published relative sea-level and sediment records. The collected 14C dates of sea-level indicators were calibrated to calendar years before present. Details of the lithostratigraphy, micro-fossil evidence and sedimentary characteristics of the sediment records were used for quantifying the vertical relationship to local reference tidal level for each of the sea-level indicators. The corrected data were plotted to produce sea-level curves. The reconstructed sea-level curves uniformly confirm a phase of rapid sea-level rise before 8000 cal. yr BP and show marked spatial differences between latitudes. In the southern sector (southern South China Sea), relative sea level reached a highstand of c. 2 m around 5800 cal. yr BP. In the northern sector (Bohai Bay and the Yellow Sea), however, relative sea level continued to rise over the past 6000 years at a slow rate. This series of sea-level curves provide an opportunity to evaluate the effects of hydro-isostatic processes along this coast. In addition, localized tectonic movements can also be identified.