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Holocene Coastal Dynamics in the Eastern Gulf of Thailand

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In the light of global warming and rising sea level, it is important to understand coastal sedimentary systems with their variety of processes acting on different timescales, spatial dimensions, and with different effects. The Gulf of Thailand is located on the continental shelf of the South China Sea and is an economically important and densely populated area. The present proposal represents a continuation of previous work in the eastern Gulf of Thailand that was done in close collaboration with colleagues from Bangkok. The aim of the project is to contribute to the reconstruction of the coastal evolution in the region. This is done by identifying evidence of past sea-level change, coastline movements and deciphering the role of sediment accumulation in the area between the Chantaburi and Welu estuaries. A combination of geomorphological mapping, geophysical surveying and drilling of sediment cores at selected locations is used for this purpose. The latter will be used to reconstruct sedimentary facies and optically stimulated luminescence signal of quartz, and potentially radiocarbon, will be used to place sediment deposition into a chronological frame.

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