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Reconstruction of Andaman Sea coastal environment during the past 500 years

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The Andaman Sea is a semi enclosed marginal sea in the northern Indian Ocean. Marine sediment of Andaman Sea is supplied not only from Ayeyawady - Salween river system but also from surface current from the Bay of Bengal driven by Indian monsoon. Although the change of coastal sediment environment in Andaman Sea is important for understanding climate system associated with livelihood, their reconstruction remains unclear. In this study, a marine sedimentary record sampled at a water depth of 75 m (core length: 450cm) in coastal environment of the Andaman Sea $(15^{\circ}N, 96^{\circ}E, \text{ southwestern Myanmar})$ was used to reconstruct the paleo-environmental change over the past 500 years. We find the evidence from ^{14}C ages that the sediment rate decreased between about $150\sim170$ cm bsf $(1600\sim1750 \text{ cal yr A.D})$ of the core. Moreover, grain size analysis reveals finer between about the $150\sim170$ cm bsf part. Therefore, our results suggest the reduction of sedimentary supply into Andaman Sea coastal area from rivers around $1600\sim1750$ cal yr A.D. There is a possibility that these results were reflected various environmental changes (e.g. onshore precipitation).

Keywords: sedimentary condition, Andaman Sea, grain size analysis

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