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Holocene coral Sr/Ca records from Panjang Island-Banten and Lampung bay-Sunda strait, Indonesia

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The mid-Holocene represents a radically different climate state from the present-day, largely due to natural forcings that are relatively well known. This is why the mid-Holocene is a key period for paleoclimate model studies such as the PMIP initiative (Braconnot et al., 2016). In this study, three fossil coral cores from Panjang Island and Lampung Bay, Indonesia are analysed for Sr/Ca. Based on diagenetic screening these corals are well preserved. U/Th dating of all Panjang cores resulted in mid Holocene ages (i.e. 5000-6000ky BP), thus these results will provide an important contribution for a better understanding of tropical climate variability during this important period. In addition, a core from Sunda Strait records the medieval warm period (i.e. 800-1400 AD) which is also an important warm period, although external forcings are largely similar to the present day (Moberg, et al., 2005). The Sr/Ca data obtained so far indicates clear seasonal, interannual and decadal variability. This study will therefore significantly contribute to a better understanding of climate variability during the mid-Holocene warm period in the tropics.

Refferences

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