

## Identification of multiple faulting of the Yoro fault based on sedimentological core analysis

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Close-interval sedimentological analysis and radiocarbon dating of sediment from adjacent core samples across a fault is an instructive tool for identifying multiple faulting events and these timing (Nakanishi et al. 2002a). Under the western margin of the Nobi Plain, central Japan, vertical displacement along the Yoro fault is recorded in ca 40 m Holocene sediment (Togo 2000; Ishiyama et al. 2003). We obtained two core samples from the present delta plain crossing this fault. Sedimentological analyses of lithology, initial magnetic susceptibility (2 cm-interval), analyses of grain size (10 cm-interval), composition of very fine sand fraction (20 cm-interval), and AMS radiocarbon measurements (38 samples) were carried out on these core samples. Based on vertical displacement of Kikai-Akahoya ash layer (K-Ah; Machida and Arai 1978), we estimated the average vertical slip rate of the Yoro fault at 1.6 mm/cal year. This slip rate is lower than one of the Kuwana fault (2.1 mm/cal year; Nakanishi et al. 2002b), estimated from vertical displacement of K-Ah at southwestern Nobi Plain.