Offset in radiocarbon ages between shell and plant pairs in the Holocene sediments around southwest Japan and Korea

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Since 2009, a research project to evaluate the marine reservoir effects of the coastal sites of southwest Japan and Korea has been progressed. Estimating the reservoir effect of this area is difficult because age-known marine samples obtained before AD 1950 are rare. In order to solve this problem, sediment cores were collected by an all-core drilling, geoslicer, percussion drilling tool from southwest Japan and Korean Peninsula. Based on analysis of lithology and mollusk assemblages, we selected marine shell and terrestrial plant pairs from same horizons. These samples were cleaned by physical and chemical pretreatments, and reduced by automatic graphitization system in KIGAM. The radiocarbon ages of the samples were measured by the AMS facility of KIGAM. This presentation will report about spatial and historical variation of radiocarbon marine reservoir effect around southwest Japan and Korea.

Keywords: radiocarbon age, marine reservoir effects, coastal sediments