

Coseismic uplifts of the southern Izu Peninsula and the coastal area of Shimizu Plain

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We examined coseismic uplift events in the coastal area of the Shimizu Plain, and at the southern end of the Izu Peninsula. On the basis of lithologies, fossil contents, and radiocarbon dating, we identified geological and paleontological evidence for abrupt changes in depositional environments related to coseismic uplift associated with the AD 1854 Ansei-Tokai earthquake. We estimated a maximum coseismic uplift of 1.2 m and post-earthquake gradual subsidence of ca. 0.6 m. Radiocarbon dating of the emerged sessile assemblages at the southern end of the Izu Peninsula, central Japan suggest that at least four coseismic uplift have occurred in the area, during 3387-2485 cal yr BP, AD 570?820, AD 1000?1270, and AD 1430?1660.

Keywords: Coseismic uplifts, southern Izu Peninsula, Shimizu Plain, Holocene, Ansei-Tokai earthquake