

## Coseismic uplift of the southern of the Izu Peninsula, central Japan, based on emerged marine sessile assemblages

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Based on faunal compositions and outcrop elevation distributions, we identify three zones of emerged sessile assemblages in sea cave at the southern end of the Izu Peninsula, central Japan. The uppermost Zone I is hard, massive shellcrust exposed between 3.5 and 2.7 m above present mean sea level, and consists mainly of barnacles that inhabit the upper tidal zone. Zone II occupies an elevation range of 2.7-2.0 m and is dominated by well-preserved individuals of barnacles found in the upper tidal zone. Zone III crops out from 2.0 to 1.0 m in elevation and is characterized by abundant calcareous tubes of polychaetes found in the lower intertidal zone. By combining the analysis of faunal compositions with the radiocarbon dating of samples from Zones I, II and III, we suggested that coseismic uplifts took place at AD 640-740 (1.2-1.5 m uplift), AD 1030-1180 (0.2-0.4 m uplift), and AD 1460-1560 (2.5 m uplift). The age range of the youngest uplift includes the times when known earthquakes occurred, in 1495 and 1498.

Keywords: southern of the Izu Peninsula, Holocene, coseismic uplift, emerged marine sessile assemblages