

Distribution of biogenic sedimentary structures in a high energy beach

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Trace fossils not only provide information on the autoecology of ancient animals but also on the paleoenvironment in which the trace-producing animals lived; improving our understanding of trace fossils requires analysis of their modern analogs. However, almost all studies on modern burrows have been carried out only on intertidal settings (tidal flat, foreshore, and marsh). Paleocology and paleoenvironmental implications of trace fossils in shallow-marine deposits were poorly understood to date. We conducted neotechnological survey on a modern shoreface setting in a high energy beach (the Hasaki Coast, central Japan), and revealed distribution ranges and trace-producers of shallow-marine trace fossils (*Bichordites*, *Macaronichnus*, *Ophiomorpha*, and *Teichichnus*). The result might be useful for reconstruction of the detailed paleoenvironment of ancient shallow-marine deposits.

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