

## Most benthos floats up in liquefied sandy substrates: quantitative evaluation by measuring living-organism density

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Seabed liquefaction substantially affects benthic ecosystems. To investigate exogenous-forced behavior of organisms in liquefied substrates, we measured the body density of benthic organisms including bivalves, gastropods, annelids, and echinoderms collected from some localities in Japan, and compared them with the liquefied substrate density. Density of most measured benthic species showed was less than that of the liquefied seafloor sediments, suggesting that these species would float upwards in liquefied substrates. In contrast, a few individuals of three species showed higher body densities than the density of the liquefied sediments. These heavier benthic species would be expected to move downward during liquefaction of the substrate. These findings indicate that body density may determine the response of each benthic species to seabed liquefaction, forcing them to move upward or downward depending on their body density.

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