

Implications of the distribution of marine terraces and submerged terraces in Japanese Island

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One of the primary issues of the geological disposal technology is to advance the techniques associated with investigation/assessment for long-term uplift and erosion in terrestrial-marine transitional zone in Japan. To examine this issue, it is inevitable to understand the geomorphic features indicating uplift and erosion in the continental shelf, which widely emerged during glacial periods. Submerged terraces defined as step-like and lobate seabed features can be identified along the continental shelves. These landforms morphologically mimic marine terraces in terrestrial areas. This study compared the distribution of submerged terraces and MIS 5e terraces in Japan. As a result, the trends of the depth change of submerged terraces in some areas appear to be consistent with the trends of the elevation change of MIS 5e terraces. Furthermore, some cases show the depth of submerged terraces changes abruptly at the seaward extension of terrestrial active fault. These results imply submerged terraces in Japan can be an indicator of regional tectonics in the seafloor.

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