

ACG032-12

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## A 2000-year record of anchovy and sardine fossil scale abundances from the Beppu Bay sediments

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In order to long-term dynamics of Japanese anchovy and Japanese sardine stocks, we examined abundances of anchovy and sardine fossil scales in the Beppu Bay sediments covering the last 2000 years.

The fossil scale abundance records showed variability on timescales around 50 years. Assuming that there were no considerable change in sedimentation rates during all the intervals, the records imply 50-yr variability of anchovy and sardine stock abundances around Beppu Bay and no species alternations for the last 2000 years. It would be validated if we could analyze counts of annual laminae in the sediments.

Keywords: fossil scale abundance, anchovy and sardine, Beppu Bay, species alternations, regime shift