Towards sustainable use of offshore marine ecosystems under environmental change
-An approach to predicting spatio-temporal distributions of commercial fish-

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The Sanriku offshore area, one of the world's leading fishing grounds, is now in need of discussion on how to continue fishing in the future. In this presentation, I would like to focus on climate change, which is a concern for the impact on commercial fishes in these discussions. What will the trends of fishery resources be in the future? Will their range shifts reported in North America and Europe also occur in Japan? Will all species benefit or be harmed in the same way? With these questions in mind, we attempted to use spatial modeling to predict the impact of future climate change, focusing on the bottom fishes of the Sanriku offshore fisheries resource. This presentation will show how the distribution of fishes respond to climate change in the Sanriku offshore area, which consists of complex ocean currents and bathymetry. We hope this will be a seed for thinking about sustainable fisheries off Sanriku for the future.