

Abstract

Rising to the challenge of reconstructing the coastal fisheries environment following the massive tsunami in Japan: the national 10-year “Tohoku Ecosystem-Associated Marine Sciences (TEAMS)” project

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On 11th March, 2011, the fifth most powerful earthquake in recorded history occurred off Japan in the northeastern (Tohoku) Pacific coastal area known as the Sanriku coast. It is now known as the Great East Japan Earthquake and was a magnitude 9.0 undersea megathrust type earthquake with its epicenter approx 70 km east of the Oshika Peninsula in Miyagi Prefecture. About 20,000 victims were confirmed dead or are still missing. Additionally, the tsunami-related nuclear accidents at the Fukushima Daiichi Nuclear Power Plant resulted in the release of large quantities of radioactive substances into the environment.

The impact of the earthquake and tsunami on the Sanriku area and the subsequent process of transition over the course of time are yet to be determined. TEAMS is a national project to observe marine ecosystem change and was launched by the Japan Ministry of Education, Culture, Sports, Science and Technology. TEAMS is composed of research groups at three institutions. The representative institution, Tohoku Univ., is undertaking the project “Elucidation of the environmental change process in the fishing environment”; the Atmosphere and Ocean Research Institute (AORI) of the Univ. Tokyo is performing “Studies on the mechanisms of marine ecosystem change” and the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) is charged with “Elucidation of the mechanisms of ecosystem change on the seafloor around the coastal area”. TEAMS will construct a database for research information. The main objective of TEAMS is to facilitate reconstruction of the coastal environment and fisheries in the Tohoku area.