

## Impacts on the deep-sea ecosystem off Sanriku from the mega-earthquake and tsunami of 2011: Research by the TEAMS

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The Great East Japan Earthquake of March 11, 2011 generated a massive tsunami wave that severely damaged coastal areas of Japan. The earthquake and tsunami of the Great East Japan Earthquake also caused extensive damage to the marine ecosystem including deep-sea off Sanriku region. It means that local fisheries received the devastating damage from this catastrophe. The deep-sea fishing is one of the most important fisheries in this region. In order to help understand and utilize marine ecosystems and fisheries including deep-sea fisheries, JAMSTEC has conducted multidisciplinary researches under the project, Tohoku Ecosystem-Associated Marine Sciences: TEAMS as a decadal program beginning in FY 2011 with the Tohoku University and the Tokyo University. JAMSTEC subjects are:

- to estimate the influence of debris on ecosystems and fisheries,
- to reveal the ecology of organisms living on the seafloor in offshore areas,
- to explain how the seafloor environment will change,
- to reveal the state of pollution in the sea by monitoring levels of PCB,
- to create habitat and ecosystem maps,
- to share TEAMS activities and results known to the public (Database).

For progress of these subjects, we have carried out investigations and research mainly in offshore waters using a range of tools and equipment, such as research ships, ROVs and IT technology.

We will present progress activities of TEAMS by the JAMSTEC and would like to discuss how to contribution for reconstruction of local fisheries from science aspects.