

Cruise information

Cruise number	NT15-06
Name of the vessel	R/V Natsushima
Chief scientist	Takafumi Kasaya (TEAMS, JAMSTEC)
Representative of Science Party	Shinji Tsuchida (TEAMS, JAMSTEC)
Title of the cruise	Elucidation of the marine ecosystem fluctuation mechanism in the Sanriku offshore area
Cruise period	3 Apr.2015 – 13 Apr. 2015
Ports of call	Yokosuka port – Sendai-Shiogama port
Research Area	Off Tohoku region (Fig.1)

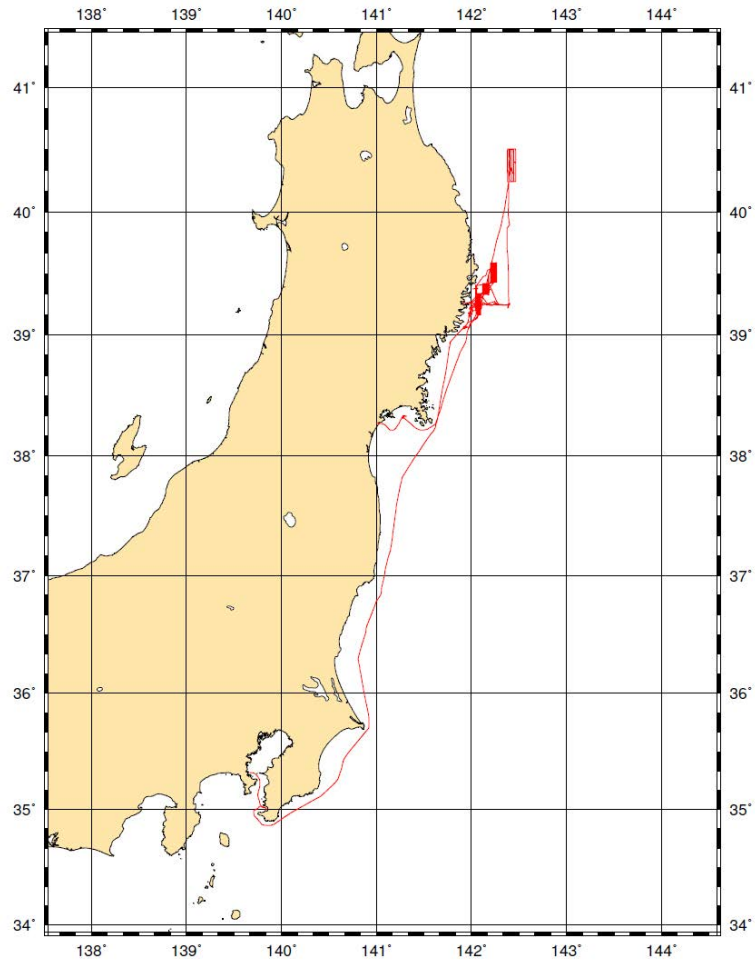


Fig.1 Ship track of this cruise.

Cruise summary

Cruise proposal

Elucidation of the marine ecosystem fluctuation mechanism in the Sanriku offshore area

The purpose of this cruise is to understand the impacts to marine ecosystems by the 2011 Earthquake off the Pacific coast of Tohoku) and Tsunami, and to contribute by marine science aspects to recover and rebuild of Sanriku fisheries activities. Target areas are sea bottom layers off Sanriku. This cruise is conducted under the TEAMS project, namely Tohoku Ecosystem Array of Marine Sciences. Detail investigation subjects are topographic surveys, mapping of scattered debris, distribution patterns and diversity of benthic organisms, seawater and sediments chemical and sediment components. Based on these data and samples, we will construct habitat map for ecosystem management in Sanriku areas. In this leg, we obtained acoustic data to fully understand the recent bathymetry, seafloor condition. To obtain higher accuracy data for correcting the current seafloor condition including marine earthquake debris, we used a towing side scan sonar with 120 kHz and 410 kHz acoustic signals. Moreover, the synthetic aperture sonar (SAS) system developed by JAMSTEC was also used around the shallow area to obtain very fine acoustic images of seafloor. We also conducted the shipboard MBES survey.