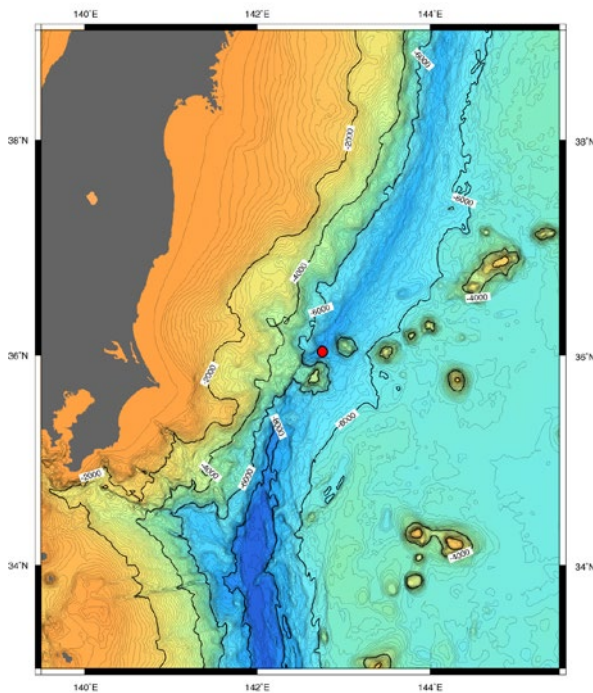


Cruise Summary

1. Cruise Information

- Cruise ID KR12-19
- Name of vessel R/V Kairei
- Title of the cruise Geomicrobiological expedition for the Japan Trench and Ogasawara Trench
- Chief scientist [Affiliation] Takuro Nunoura [JAMSTEC]
- Representative of the Science Party [Affiliation] Takuro Nunoura [JAMSTEC]
- Title of proposal Expedition for Trench Biosphere – Microbiological and geochemical investigation for the trench environments-
- Cruise period 30th Nov – 7th Dec 2012
- Ports of call JAMSTEC (Yokosuka) ~ JAMSTEC (Yokosuka)
- Research area Ogasawara Trench and Japan Trench (Pacific Ocean)



A red plot indicates the survey point during the cruise.

2. Overview of the Observation

Major objective is to know the geochemical cycles and microbial ecosystems in trench biosphere especially for the nutrient fluxes along the trench environments. We had a plan to take waters and sediments from a total of three sites, the northern end of the Ogasawara Trench (34N), southern end of the Japan Trench (36N) and the JFAST drilling site (38N), however, due to the bad sea conditions, we surveyed only the 36N Japan trench site during the cruise. As a result, waters from sea-surface to the trench were taken by two CTD carousel casts, and trench bottom sediments were obtained by one 11k free fall camera system operation. One dives of ROV ABISMO was conducted during the cruise, but was not succeeded due to a mechanical trouble. Geochemical and microbiological analyses will be carried out after the expedition while parts of geochemical and microbiological analyses were performed on board.