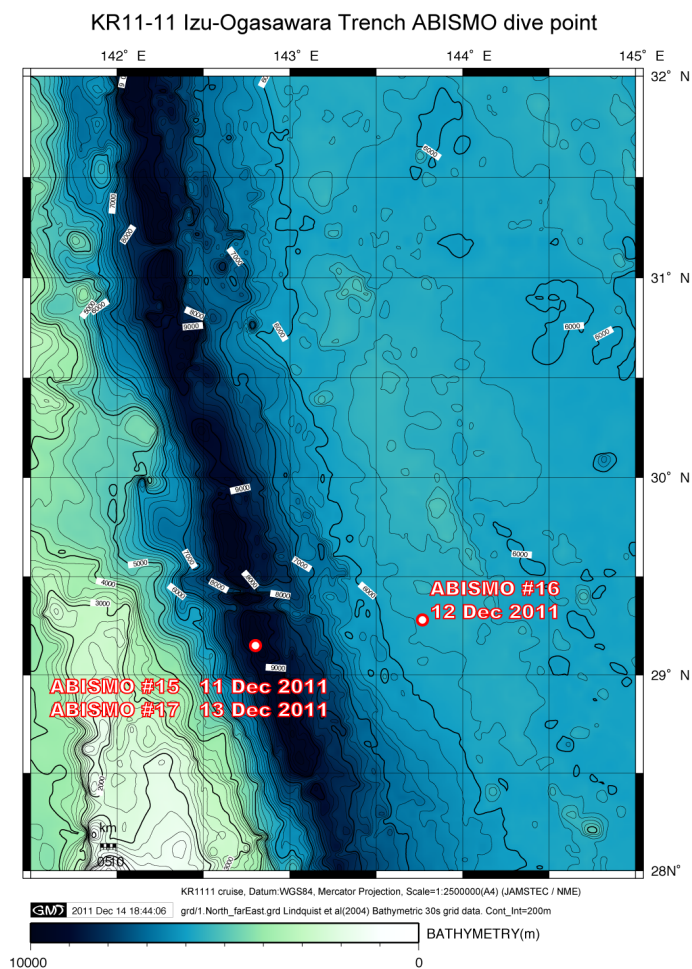


Cruise Summary

1. Cruise Information

- Cruise ID KR11-11
- Name of vessel R/V Kairei
- Title of the cruise Geomicrobiological expedition for the 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 Ogasawara Trench-
- Cruise period 8th Dec – 15th Dec 2011
- Ports of call JAMSTEC (Yokosuka) ~ JAMSTEC (Yokosuka)
- Research area Ogasawara Trench, (Pacific Ocean)



2. Overview of the Observation

Major objective is to know the geochemical cycles and microbial ecosystems in trench biosphere. During the KR11-11 cruise we conducted three dives of ROV ABISMO on the bottom of the Ogasawara trench (29° 09.00' N, 142° 48.12 'E, water depth of 9776 m) and the abyssal plain (eastern edge of the trench) (29° 17' N, 143° 46'E, 5747 m). We also deployed a lander system with video camera, water sampler and sediment corer on the bottom of the trench. During the dive surveys, we took each one sediment core in two ABISMO dives and water samples by Niskin bottles in all three dives. Geochemical and microbiological analyses will be carried out after the expedition while parts of geochemical parameters were analyzed on board. In the lander observatory, we tried in situ incubation experiments for water and sedimentary habitats. Due to a mechanical accident of the R/V Kairei, we could not recover the lander system during the KR11-11 cruise. The system was retrieved by the R/V Yokosuka during a transit cruise to dockyard (22nd Dec - 16th Dec 2011).