Cruise Summary

１. Cruise Information

● Cruise ID: NT12-22

● Name of vessel: R/V *Natsushima*/ROV *Hyper-Dolphin 3000*

● Title of the cruise: IMPACTO (IMPlantation of Animal Carcasses for Time-series Observations) III & KOOHOO III

● Chief scientist [Affiliation]: Yoshihiro FUJIWARA [JAMSTEC]

● Representative of the Science Party [Affiliation]: Yoshihiro FUJIWARA [JAMSTEC]

Kyohiko MITSUZAWA [JAMSTEC]

● Title of proposal: Implantation of animal carcasses for time-series observations KOOHOO III

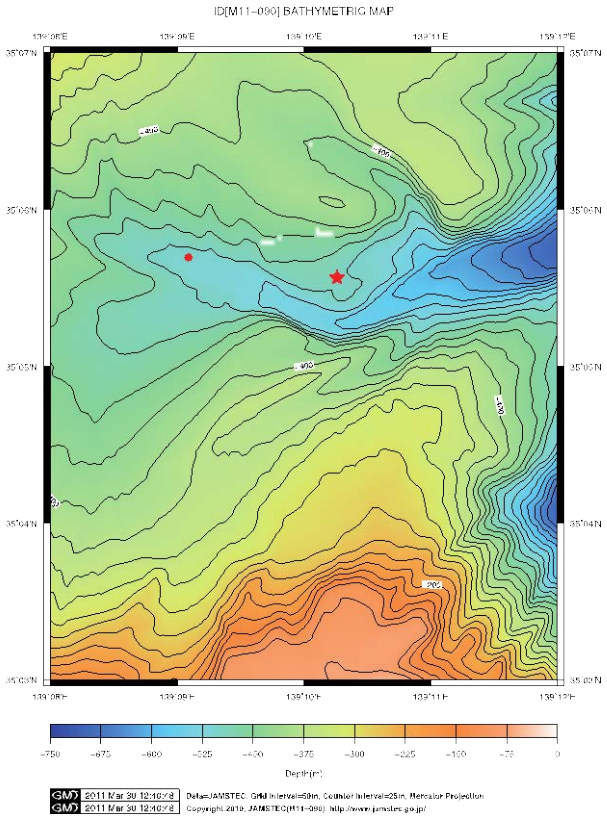
● Cruise period: August 21, 2012 - August 25, 2012

● Ports of call: from JAMSTEC port (Yokosuka) to JAMSTEC Port (Yokosuka)

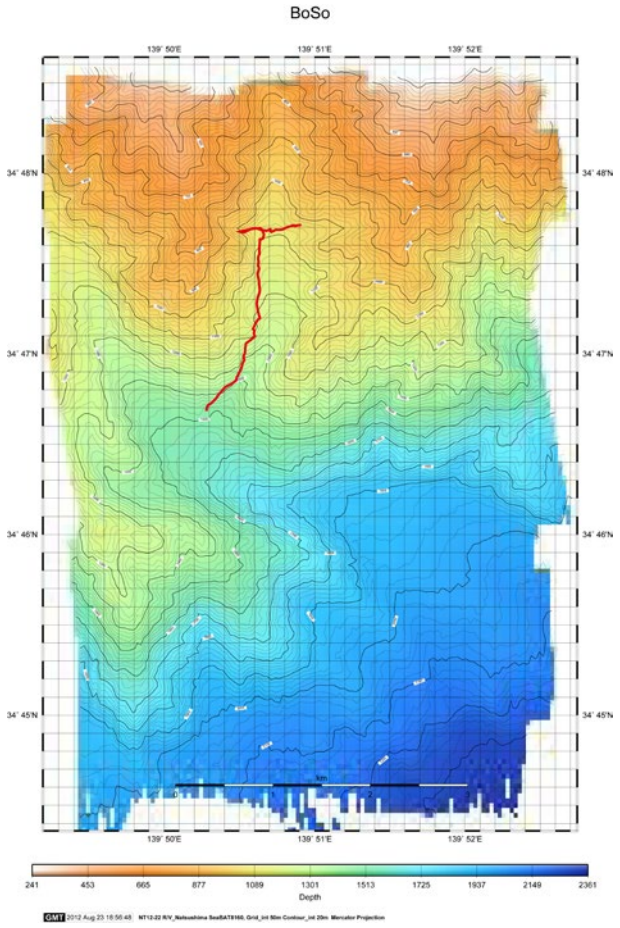
● Research area: Sagami Bay, off Boso Peninsula

● Research map:

<IMPACTO III> Dive site is shown as ★ (sperm whale) and ● (humpback whale).



<KOOHOO III> Dive site is shown as red line.



２. Overview of the Observation

● Overview of the observation

<IMPACTO III>

To elucidate faunal succession and decomposition process of a whale carcass, an ROV diving research was conducted in Sagami Bay. A baby sperm whale (5 m in total length) was submerged at a depth of 500 m in the bay on June 8, 2012. Most soft tissues were consumed within 2.5 months from the deployment. Most dominant consumers were eels and crustaceans from the ROV observations. For long-term observations and analyses, four time-lapse cameras, two sediment traps and three current profilers were retrieved around the carcass. Additionally, a sunken humpback whale carcass, which was deployed by a local government, was observed.

<KOOHOO III>

This dive was performed along the west wall of the unnamed submarine canyon, one of the branches of the Nojima canyon, in the So-o Trough. Dive started at the junction

of the two canyons and later proceeded along the wall of the unnamed canyon. We observed thick sediments transported by turbidity currents from land at the center of the canyon, eroded surface of the basement sedimentary rocks of the canyon wall. During the dive we collected 7 rocks (Mud stone, conglomerate), 4 push cores and 10 organisms.