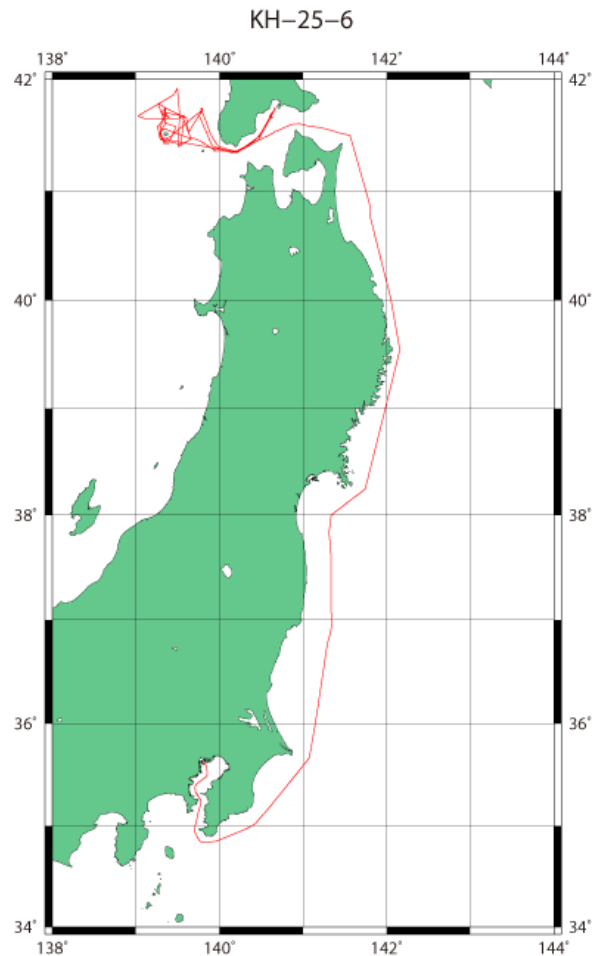


Cruise Summary

1. Cruise Information

- (1) **Cruise ID:** KH-25-6
- (2) **Vessel:** R/V HAKUHO MARU
- (3) **Cruise Title**
Elucidating the mechanism of geological disasters triggered by the 1741 sector collapse of the Oshima-Oshima volcano
- (4) **Chief Scientist**
Jun Arimoto (GSJ/AIST)
- (5) **Representative of the Science Party**
SHN25-02 Jun Arimoto (GSJ/AIST)
- (6) **Research Titles**
SHN25-02 Elucidating the mechanism of geological disasters triggered by the 1741 sector collapse of the Oshima-Oshima volcano
- (7) **Cruise Period**
2025/12/04 - 2025/12/13
- (8) **Ports of departure/call/arrival**
Ariake - Hakodate
- (9) **Research Area**
Sea of Japan, off the west of Hokkaido, around Oshima-Oshima

(10) Cruise Track



2. Overview of the Observation

This study investigates the northern sea area off the active Oshima-Oshima Volcano in the Sea of Japan, west of Hokkaido, which caused a large-scale geological disaster triggered by the sector collapse at A.D. 1741. By systematically implementing both geophysical surveys to constrain spatial information and sediment core sampling to examine the event stratigraphy from the vicinity of the mass wasting deposits to their terminus, this study aims to elucidate the mechanism from volcanic eruption through mass wasting to the supply, transport, and settling on the seafloor.

We investigated north and east offshore areas of the Oshima-Oshima volcano by seismic reflection survey, bathymetric survey, three component magnetic survey, surface sediment coring and dredging. Seismic reflection survey revealed W-E

structure of the sedimentary basin north of Oshima-Oshima and lateral variation of thickness and structure of sedimentary units possibly associated with sector collapse. Bathymetric survey and backscatter data revealed detailed extent of distribution of collapsed blocks as well as more distal part of possible mass transport deposit.

Sediment core sampling operations with a gravity corer with a pilot "Ashura" corer, as well as with a multiple corer, were conducted at 6 and 5 stations, respectively. Sediment core materials were successfully recovered at 10 stations. Preliminary observation indicates that tephra layers and volcanic turbidites were frequently occurred in several proximal sites.

Dredge sampling was conducted at 7 locations. Small topographic highs around the Oshima-Oshima were chiefly targeted, and at most sites bottom images confirmed outcrops.

Volcaniclastic sandstone, lava blocks and other igneous rocks were recovered at 6 stations, and unconsolidated mud and/or sand materials were obtained at all sites.