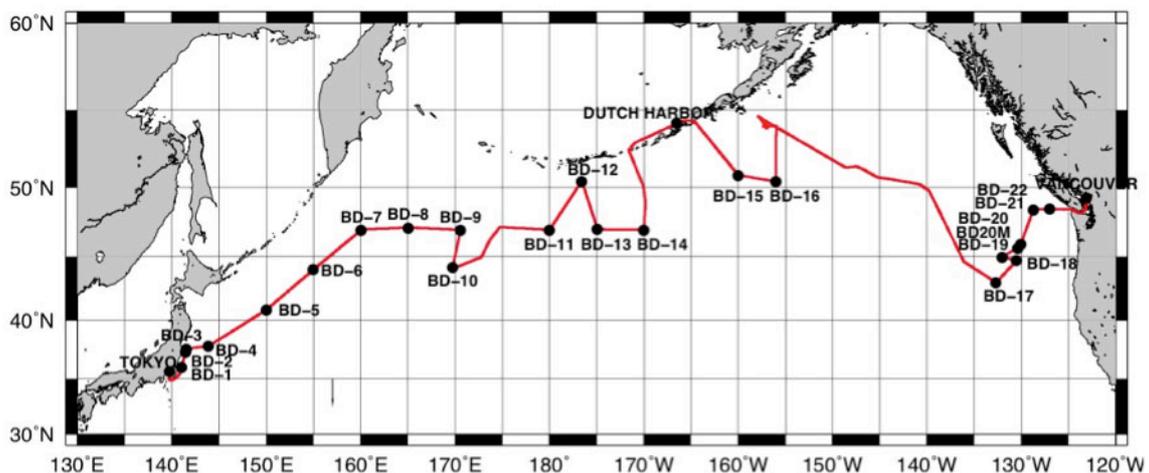


## Japan

### *Cruise*

The GEOTRACES GP02 (R/V *Hakuho Maru* KH-12-4) cruise, nicknamed “Big Dipper (BD) Expedition, for the purpose of a zonal (~47°N) transect in the subarctic North Pacific Ocean was conducted from 23 Aug. to 3 Oct. 2012. Thirty three scientists including technical supporting staffs and graduate students joined the cruise (chief scientist: Toshitaka Gamo). Although the cruise had to omit several stations in the northeastern Pacific due to severe weather conditions, 22 stations as shown in the following figure were successfully occupied for clean seawater sampling from surface to bottom using a Seabird CTD-Carousel system with Teflon-coated Niskin-X (12L) bottles and a large volume (250 L) water sampling system. Bottom sediments were taken with a multiple corer. Measurements of chemical constituents and isotopes were and will be performed in clean rooms on board the ship and in shore-based laboratories. Inter-calibration was also conducted by comparing the GEOTRACES-recommended Kevlar wire hydrocast with the R/V *Hakuho Maru*'s titanium wire hydrocast. We visited a baseline station, K2 (BD-7) (47°N, 160°E) in the northwest Pacific Ocean, taking seawater samples not only for shipboard scientists but also for other international scientists who will be interested in measuring some of the GEOTRACES key parameters for comparison.



**Figure 1.** GEOTRACES GP02 (R/V *Hakuho Maru* KH-12-4) cruise track

### *Meetings*

- GEOTRACES session in Annual Meeting of the Geochemical Society of Japan (in Japanese) was convened by Y. Sohrin and J. Zhang on 11 Sep 2012 at Kyushu Univ, Hakata. There were 11 oral presentations and fruitful discussions.
- National sub-committee on GEOTRACES (affiliated to the national SCOR committee) in the Science Council of Japan was held at Tokyo University of Marine Science and Technology on March 24, 2013, during the Spring Meeting of Oceanographic Society of Japan. International and national problems and information on GEOTRACES program were widely discussed and exchanged.

### *Recent publications*

- Nishioka, J. Obata, H., Tsumune, D.: Evidence of an extensive spread of hydrothermal dissolved iron in the Indian Ocean. *Earth Planet Sci. Lett.*, 361, 26-33 (2013).
- Vu, H.T.D. and Sohrin, Y.: Diverse stoichiometry of dissolved trace metals in the Indian Ocean. *Sci. Reports*, 3, DOI: 10.1038/srep01745 (2013).

***New research vessel***

R/V *Tansei Maru* (JAMSTEC) was retired at the end of January 2013. The successive new vessel *Shinsei Maru* (1630t, 15 scientists) is now being constructed by JAMSTEC, and will be completed in June 2013. R/V *Shinsei Maru* is equipped with a Kevlar armored cable and a clean container laboratory, which will be useful for trace element studies chiefly in coastal areas.

Submitted by: Toshitaka Gamo