

## **Cruise Summary of research cruise YK 09-12.**

1 . Cruise number: YK09-12. Research Vessel/submersible: R/V Yokosuka/Shinkai 6500

2 . Aims:

Collections of the deep-sea dwelling chemo-symbiotic clam, *Calyptogena phaseoliformis*, and of the giant Xenophyophore foraminifer.

3 . Principal Investigator/ affiliation: Tadashi Maruyama, D. Sc./JAMSTEC

4 . Participants :

Tadashi Maruyama, D. Sc. (JAMSTEC)

Masashi Tsuchiya, PhD. (JAMSTEC)

Takao Yoshida, PhD. (JAMSTEC)

Yoshimitsu Nakamura, PhD. (JAMSTEC)

Yuhki Hongou, Mr. (Tokyo University of Marine Science and Technology)

Akihiro Tame, Mr. (Marine Works Japan, Ltd.)

Yuhji Miyake, PhD. (Kitasato University)

Mitsuru Jinbo, PhD. (Kitasato University)

Haruka Shibata, Ms. (Kitasato University)

Béatrice Lecroq, PhD (Univ. Geneva)

Cathalina Aguilar Hurtado, Ms. (Univ. Ryukyus)

Frederic Sinniger, PhD. (Univ. Ryukyus)

Takuma Fujii, Mr. (Univ. Ryukyus)

Takuya Maekawa, Mr. (Nippon Marine Enterprises, Ltd.)

## 5. Survey area: Japan Trench

We originally planned to dive at stations S-1, S-2 and S-3 (Fig. 1). However, we made only two dives at S-2 due to bad weather.

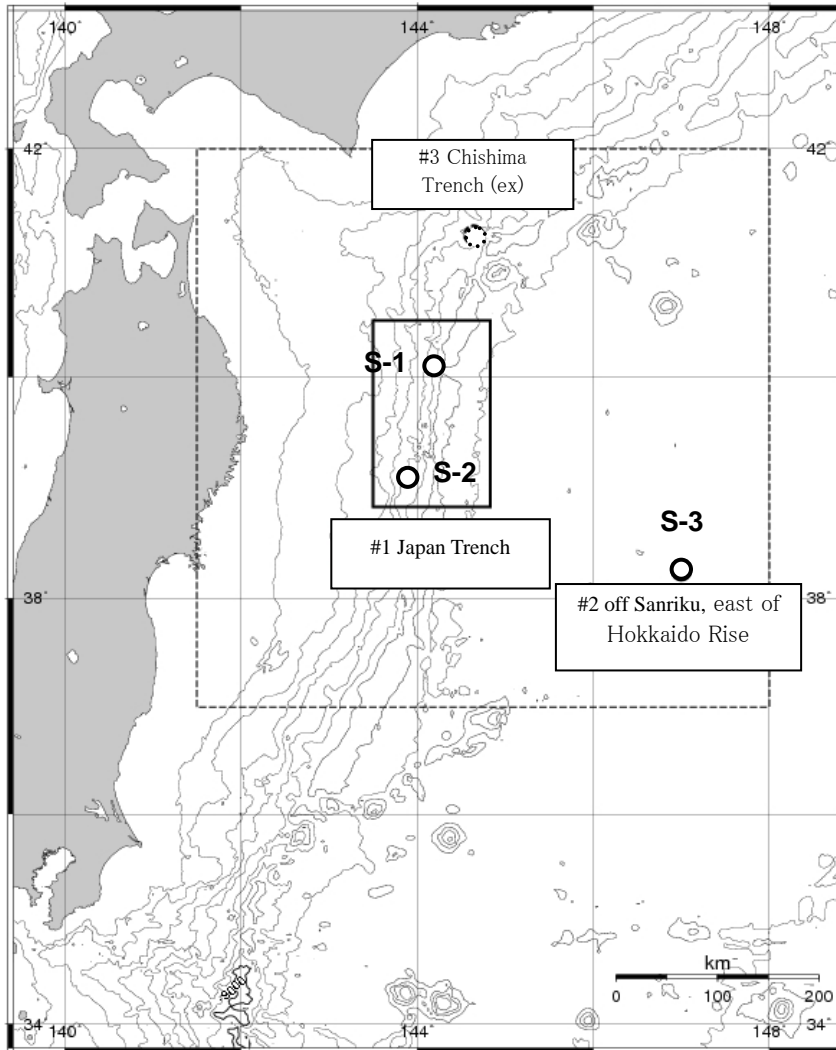


Fig. 1. Survey area.

6 . Cruise period: Aug. 28<sup>th</sup> – Sept. 7<sup>th</sup>, 2009.

#### Summary of the research conducted during the cruise

To collect the deep-sea dwelling chemosymbiotic clam, *Calyptogena phaseoliformis*, and the large sized deep-sea dwelling Xenophyophore foraminifer, we planned to make 5 dives at S-1 (for collecting *C. phaseoliformis*), S-2 (for *C. phaseoliformis* and some cnidarians) and S-3 (for Xenophyophore) (Fig. 1). However, Typhoon #11 passed the area including these diving areas during the cruise, and we could not dive from Aug. 29th to Sept. 3rd. We made only two dives at S-2 on Sept. 4<sup>th</sup> and 5<sup>th</sup>. Because a new typhoon, Typhoon #12, appeared and moved north, we shortened the cruise by one day and moved to Ohfunato-bay. On Sept. 6<sup>th</sup>, we arrived at Ohfunato-bay and five scientists disembarked. The R/V Yokosuka headed to Yokosuka and arrived at the JAMSTEC pier on Sept. 7<sup>th</sup>.

In the two dives at S-2 (Fig. 2), we collected *C. phaseoliformis* (Fig. 3), deep-sea ctenophores, zoanthids, octocorals and some garbage (Fig. 4). Unfortunately, we could not find the Xenophyophore.

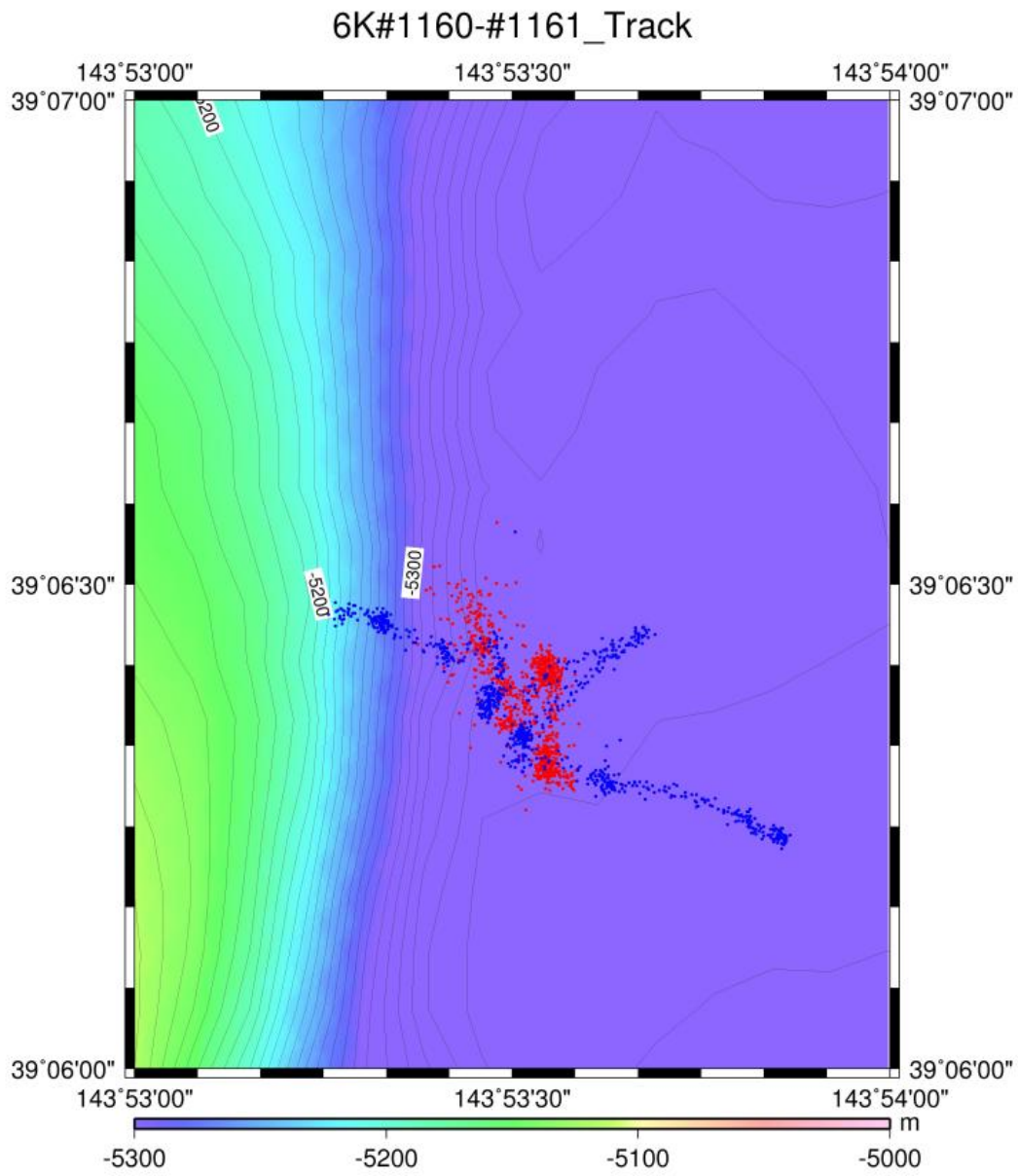


Fig. 2. Dive tracks of the dive 6K-1160 (blue) and 6K-1161 (red).



Fig. 3. A colony of *Calyptogena phaseoliformis* at S-2 site in the Japan Trench.



Fig. 4. Some garbage (plastic bag) on the sea floor of the Japan Trench, site S-2 site. Some octocorals were found on the surface of the bag.