

# Cruise Summary

## 1. Cruise Information

- (1) **Cruise ID:** KS-21-6
- (2) **Vessel:** R/V SHINSEI MARU
- (3) **Cruise Title**  
Influence of sea ice melt water on physical and biogeochemical processes in the southern Sea of Okhotsk
- (4) **Chief Scientist**  
Jun Nishioka (ILTS, Hokkaido Univ.)
- (5) **Representative of the Science Party**  
S21-15 Jun Nishioka (ILTS, Hokkaido Univ.)
- (6) **Research Titles**  
S21-15 Influence of sea ice melt water on physical and biogeochemical processes in the southern Sea of Okhotsk
- (7) **Cruise Period**  
2021/04/11 - 2021/04/29
- (8) **Ports of departure/call/arrival**  
Hakodate - Kushiro
- (9) **Research Area**  
Southern Sea of Okhotsk

## 2. Overview of the Observation

To understand influence of sea ice melt water on physical and biogeochemical processes in the southern Sea of Okhotsk, we have investigated the distribution of sea ice melt water, iron and nutrients distributions and concentrations, optical parameters, water structures, phytoplankton physiology during spring bloom season. Additionally, we have investigated influence of phytoplankton blooming on aerosol formation, and distribution of whale and mammal in the study area.

- (1) CTD & L-ADCP observation
- (2) CTD clean water sampling

- (3) C-OPS optical parameter measurement
- (4) Sediment sampling by Okean grab sampler
- (5) ondeck incubation experiment
- (6) Underway clean sampling and monitoring survey
- (7) Aerosol sampling
- (8) Whale and mammal watch
- (9) Tide 24-h observation
- (10) CDOM observation by CDOM sensor
- (11) Norpac net zooplankton sampling
- (12) X-CTD observations