Cruise Summary

1. Cruise Information

(1) **Cruise ID:** KS-21-9

(2) **Vessel:** R/V SHINSEI MARU

(3) **Cruise Title**

Impact of the Kuroshio Large Meander on the formation and advection of Subtropical Mode Water and the sea conditions and weather in the coastal area of Enshu-nada

(4) **Chief Scientist**

Hatsumi Nishikawa (AORI)

(5) **Representative of the Science Party**

S21-16 Hatsumi Nishikawa (AORI)

(6) **Research Titles**

S21-16 Impact of the Kuroshio Large Meander on the formation and advection of Subtropical Mode Water and the sea conditions and weather in the coastal area of Enshu-nada

(7) **Cruise Period**

2021/05/24 - 2021/05/31

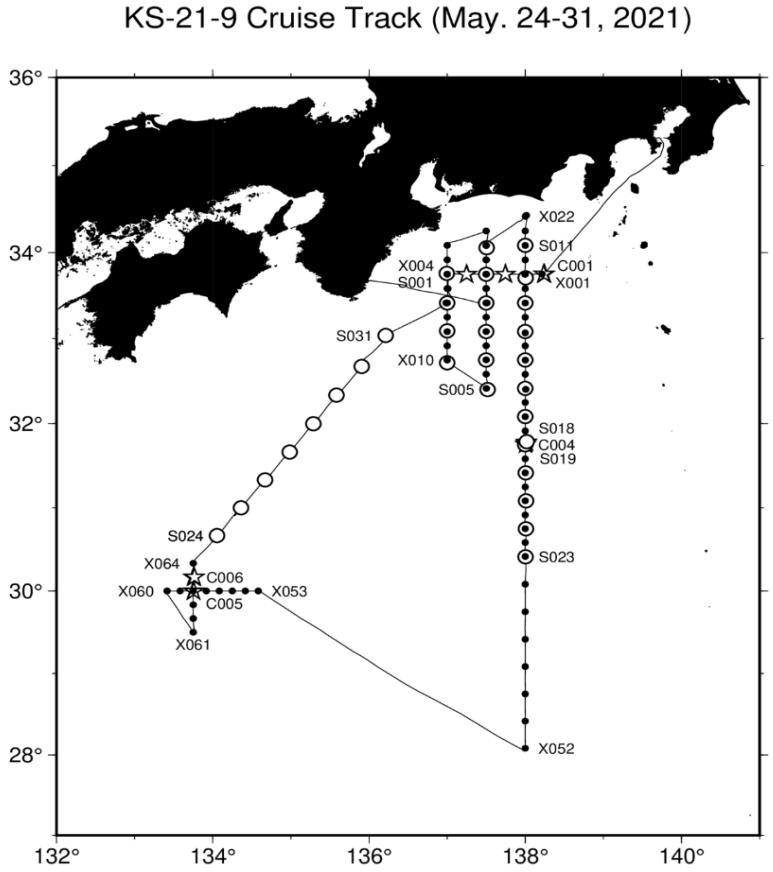
(8) **Ports of departure/call/arrival**

Yokosuka - Shingu

(9) **Research Area**

Regions south of the Kuroshio and the Kuroshio Extension Regions of Kumano-nada and Enshu-nada

(10) **Cruise Track**



Station map of KS-21-9; White star, black dot, and white circle show CTD, XCTD, and Radiosonde observation point, respectively.

2. Overview of the Observation

The main purpose of the cruise are following two;

I) XCTD, CTD, and GPS radiosonde observations to capture marine structure of the Kuroshio bifurcation flow which occurs with the Kuroshio Large Meander and atmospheric structure above the bifurcation flow.

II) XCTD and CTD observations to investigate temporal evolution of the Subtropical mode water in the recirculation gyre off Shikoku.

We also conducted continuous observation of precipitable water using microwave radiometer, cloud camera, GNSS, and GPS radiosonde, observation of radioactive cesium, and deployment of moored wave buoys.