

Research Expedition Details-RV Mirai, Japan

Dates: August 12-October 6, 2022



RV Mirai

Departs from: Japan

Returns to: Japan

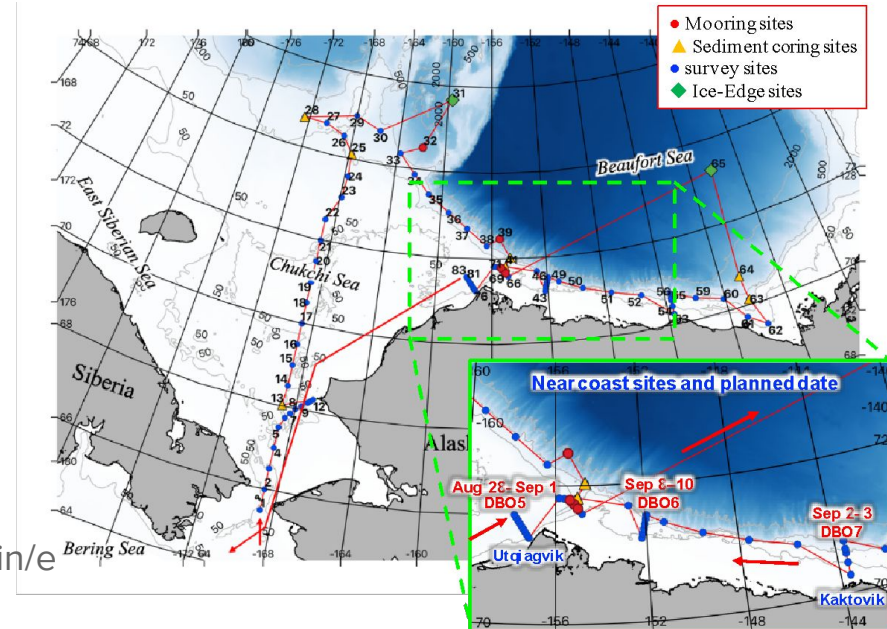
Research Area Location: Bering, Chukchi, and Beaufort
Seas, Chukchi Borderlands

Vessel: RV Mirai

Research website: <http://www.godac.jamstec.go.jp/darwin/e>

Project supported by: Arcs II, JAMSTEC, Japan

Contact information: Motoyo Itoh, motoyo@jamstec.go.jp



Contact Us: Jackie Grebmeier, University of Maryland Center for Environmental Science, jgrebmei@umces.edu

Key Scientific Questions & Motivations

Objectives

- Study Arctic Ocean environmental changes, microplastics, nutrient transport, environmental DNA, drone technology, atmospheric studies
- Sea ice experiment in the Cambridge Bay, Canada
- Ice-ocean buoy observations in the Central Arctic

Planned Activities

- Physical oceanography
- Mooring recoveries/redeployments
- Atmospheric/Oceanographic Biogeochemistry
- Marine ecosystem
- Environmental pollution
- Development of novel research technology
- Sediment core samplings
- Hydrographic surveys, DBO3, 5, 6, and/or 7
- In-water Drone trials
- Wave & Ice surveys etc.

Also paleoceanography: HAPPI (Holocene Arctic Palaeoclimatology and Palaeoceanography Investigation)

-Piston core and multiple core samplings in the Chukchi and Beaufort seas to study the variations of the Bering Strait throughflow and Mackenzie river flows in the past 2000 years

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