

OXYGEN CONSUMPTION, DENITRIFICATION, & CARBON OXIDATION RATES IN NEAR SURFACE SEDIMENTS OF THE ARCTIC OCEAN

Dr. John Christensen

Bigelow Laboratory for Ocean Sciences

The goal of this project was two-fold: (1) to determine the chemical characteristics of the sediments and their pore waters within the Arctic Basin, and (2) to evaluate the rates of organic carbon oxidation by these sediments.

SHIP TECHNOLOGY PROGRAM

Larry Schultz and Rubin Sheinberg
Science & Technology Engineering Corp.,
U. S. Coast Guard Naval Engineering

Under joint sponsorship of the U. S. and Canadian Coast Guards, this program was comprised of two major components: (1) an ice impact loads study on the CCGS LOUIS S. ST. LAURENT and (2) an icebreaking performance and trafficability study aboard USCGC POLAR SEA.

ICE-BORNE SEDIMENT TRANSPORT

Dr. Erk Reimnitz

U. S. Geological Survey

The objective of this research was to explain the large, regional variations in the sediment load in sea ice, ranging from clean to very dirty, which has been documented across the Arctic Basin.

HETEROTROPHIC MICROBES IN THE ARCTIC OCEAN

Dr. Evelyn Sherr and James Rich

Oregon State University

The researchers hope to develop a better understanding of how cold temperatures affect the growth of free living bacteria and protists that feed on them.

CLIMATE AND ATMOSPHERIC RADIATION PROJECT

Dr. Dan Lubin

California Space Institute,

U. C. San Diego

The goal of this project was to make direct measurements of the factors that instantaneously govern the climate of the Arctic Ocean, namely, the interaction of solar radiation with the Arctic ocean-atmospheric system.



Dr. Erk Reimnitz and Terry Tucker study the "dirty ice."



RADIOCARBON LEVELS IN ARCTIC OCEAN SEDIMENT

Liz Osborne for Dr. Glenn Jones

Woods Hole Oceanographic Institution
(WHOI)

The objective of this program was to collect sediment samples to help reconstruct the environmental conditions of the last 50,000 years.



PHYSICAL OCEANOGRAPHY

Kent Berger-North

Institute of Ocean Sciences and AXYS

Environmental Consulting Ltd.

Sidney B. C. Canada

The investigations of the physical oceanographic program provide information on the present conditions, processes, and circulation of the Arctic Ocean.