

SEA ICE PHYSICS AND CHEMISTRY

Terry Tucker, Dr. Tony Gow, & Bill Bosworth

U.S. Army Cold Regions Research & Engineering Laboratory

The objective of the sea ice research team were to investigate the physical and chemical properties of the ice, including: temperature, salinity, crystal structure, major ions and nutrients. The intent was to determine age, growth & ablation history, freezing fractionation processes and biological activity within the ice.

ZOOPLANKTON IN THE ARCTIC OCEAN

Dr. Delphine Thibault

Bedford Institute of Oceanography

The primary objective of this research was to identify zooplankton species (both abundance and biomass) and metabolism in the Arctic Ocean.

AEROSOL RESEARCH

John Grovenstein

North Carolina State University

The objective of this research is to better understand the interactions between man-made pollution and clouds with primary interest in aerosols that are precursors to the formation of clouds.

PHYTOPLANKTON AND NUTRIENT STUDIES

Dr. Pat Wheeler, Sandy Moore, & Mary O'Brien

Oregon State University, Canadian Institute of Ocean Sciences

Samples were collected to determine the major species of algae present in both the sea water and ice and will be studied to determine if there are major differences in species distribution in the Arctic basins.

AIR SAMPLING AND ANALYSIS

Peter Brickell

Atmospheric Environment Service, Environment Canada

The objective of this research includes the measurement of volatile organic compounds (VOCs), dimethyl sulfide (DMS), carbon dioxide (CO₂), carbon monoxide (CO), and ozone (O₃) to shed light on the chemical processes involved in global climate change.



Accolades for Dr. Anthony Gow.



The ship geared up for its most intense science mission yet.



SN Justin Jolley maintains a constant vigil for polar bears.



USGS at work with the piston core sampling.