



Canadian scientists race against time to gather data before the 3-year old "Polar Sea" awakens.



## BENTHIC BIOLOGY-A STUDY OF LIFE ON THE SEAFLOOR

Dr. Lisa Clough

East Carolina University

The goal of the benthic biology program was to determine the fate of organic carbon reaching the Arctic Ocean seafloor.

## DISSOLVED INORGANIC CARBON

Bonnie Mace for Dr. Ray Sambrotto  
Lamont-Doherty Earth Observatory

The goal of this program was to determine how much carbon in the Arctic Ocean is derived from rivers and shelf production.

## PRIMARY PRODUCTION GROUP

Dr. Michel Gosselin, Nathalie Simard, and Dr. Maurice Levasseur  
University of Quebec in Rimouski and Maurice-Lamontagne-Institute

The objective was to determine the spatial distribution of chlorophyll, a dissolved and particulate dimethylsulfonium propionate (DMSP), dimethylsulfide (DMS), and microalgal production rates in the sea-ice and upper water column of the Arctic Ocean during the summer.

## GEOSCIENCE

Dr. Art Grantz, Dr. Larry Phillips, Pat Hart, Steve May, Mike Mullen, Walt Olson, Liz Osborne, Kevin O'Toole, Fred Payne, Bill Robinson  
U. S. Geological Survey, Woods Hole Oceanographic Institution

The U. S. Geological Survey geoscience program on AOS '94 had two objectives: (1) the study of geologic aspects of global change and (2) the study of the geologic framework and tectonic history of the Amerasia Basin of the Arctic Ocean.

## MEASUREMENTS OF VOLATILE HALOMETHANES

Charles Geen

Dalhousie University

The objective of this research is to extend the data base of Arctic marine measurements of halomethanes and to estimate their ocean-to-atmospheric transfer.

### SUMMARY OF SCIENCE OPERATIONS:

• Conductivity Temperature Depth Casts (CTD)	28
• Vertical (macro biological) tows	92
• Biological box cores	26
• Geological box cores	15
• Geological piston cores	13
• Ice coring/sampling operations	23
• Continuous measurement of Arctic atmospheric "Greenhouse Effect"	
• Continuous monitoring of VOCs and atmospheric chemistry	

### TOTAL