

## Hydrochemical Nutrient Distributions and Dynamics

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We conducted a coordinated and quantitative study of the productivity responses to nutrient and biological processes in the northern Bering and Chukchi Seas. Our goals were to:

1. Quantify the range of nutrient, phytoplankton biomass and productivity in water masses distributed in the northern Bering and Chukchi Seas
2. Establish physical and chemical factors that are conducive to maintenance of relatively large rates of primary production.
3. Compare contemporary rates with those obtained in the previous decade for assessment of rate changes under the present warm temperatures.

Samples were collected at 77 stations and were analyzed for nutrients onboard in a total of 476 water samples. Raw data peaks were recorded for each sample and future data processing will be necessary to

determine final concentrations.



*Terry Whitledge,  
Photo: K. Wood*

### Equipment utilized

1. Alpkem Model 300 Rapid Flow Nutrient Analyzer (5 channels for analysis of phosphate, silicate, nitrate, nitrite, ammonium) including 5 photometers, 2 pumps and 1 sampler.