Particulate and Dissolved Organic Carbon and Nitrogen

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Summary: provide these variables to the program as service measurements

SCIENTIFIC OBJECTIVES

1) Establish the full water column spatial distributions/gradients of DOC and TDN across the shelf and shelf break and into the deep basins.
2) Establish the upper 200 m spatial distributions/gradients of POC and PON across the shelf and shelf break and into the deep basins
3) Use these data to constrain estimates of trace element complexation and TEI removal processes.

SAMPLE NEEDS

1) For DOM, 150 mL of filtered water from the standard Niskin bottle at each station and each depth (i.e., one complete, high resolution profile of these variables at each station).
2) For POM, 1 L of whole water from the standard Niskin bottle at each station and each depth in the upper 200 m.

ANTICIPATED SCIENTIFIC COLLABORATORS

1) All PIs involved in marine carbon system, nutrient, and terrigenous components (e.g., CDOM and lignins).
2) All PIs considering the role of organic matter in the dynamics of TEIs.

BERTHS and LOGISTICS

One berth for a person to be responsible for collection of carbon system samples, including those required by other PIs. The DOM samples will need to be stored in a walk-in freezer (-20oC) or equivalent.