

Scientific Theme IV

Biogeochemical Cycles in Coastal and Shelf Waters



The Scientific Theme focuses on the cycling of carbon, nutrients and sediments in coastal and shelf waters and their exchange with the ocean. This recognizes the vital and changing benthic processes of coastal waters that influence shelf ecosystems and global chemical cycles. Key issues include:

- Quantifying material transport within and across the continental shelf, transformation of materials within the water column and sediments, storage of materials in the coastal zone and air-sea exchange
- Assessing regional differences and understanding why some shelf waters are more resilient or resistant to change than others
- Defining the terrestrial boundary condition for nutrient fluxes by better integration of river basin information, including sediment dynamics and organic inputs
- Developing regional budgets and flux estimates for shelf and coastal waters in order to understand and predict the impacts of global and basin-scale changes in ocean climate and biogeochemical cycles.

no Theme Coordinator at the moment