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**“IT WAS VERY EXCITING IN THOSE DAYS.
WE WERE EXPLORERS.”**

Marie-Tharp [1920-2006], Oceanographer

Friday, 28th October, 2016, 10:30 a.m. [10:30h]

GEOMAR Lecture Hall West (R.54) | Düsternbrooker Weg 20, 24105 Kiel

The Biology of the Biological Carbon Pump



The sinking of phytoplankton derived particulate organic matter to the deep ocean constitutes an important removal process of atmospheric CO₂, and is termed the biological carbon pump.

Understanding the taxon specific connection between phytoplankton communities in the euphotic zone and their contribution to particle flux is a high priority in current oceanographic research. I will present results from DNA-based molecular studies that investigate the taxonomic composition of cyanobacterial and protist communities retrieved from particle traps in comparison to those living in the euphotic zone. I will show what sometimes surprising insights we can gain from this approach, and how fingerprints of prey DNA recovered from guts and fecal pellets of dominant zooplankton grazers can provide a link between water column communities and those recovered from sinking particles.