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

Marie-Tharp [1920-2006], Oceanographer

Friday, 28<sup>th</sup> 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 CO<sub>2</sub>, 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.