0541B-11 0830h POSTER
Time Series of pCO₂ off the Central California Coast: 1993-2001
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High carbon fluxes are associated with coastal upwelling systems. The spatial and temporal heterogeneity found in carbon cycling is not readily investigated because sampling schemes do not adequately account for the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters. In 1993, time deployments of a mooring-based system were conducted off the central California coast near the city of Moss Landing to address some of the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters. The MBARI time series mooring and measurements on the central California coast address some of the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters. In 1993, time deployments of a mooring-based system were conducted off the central California coast near the city of Moss Landing to address some of the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters. The MBARI time series mooring and measurements on the central California coast address some of the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters. In 1993, time deployments of a mooring-based system were conducted off the central California coast near the city of Moss Landing to address some of the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters. The MBARI time series mooring and measurements on the central California coast address some of the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters. In 1993, time deployments of a mooring-based system were conducted off the central California coast near the city of Moss Landing to address some of the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters. The MBARI time series mooring and measurements on the central California coast address some of the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters. In 1993, time deployments of a mooring-based system were conducted off the central California coast near the city of Moss Landing to address some of the scales of variability that have to be resolved to properly estimate net-air carbon flux in coastal waters.
Using preformed nitrate to infer recent changes in remineralization in the upper thermocline of the subtropical North Pacific

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The preformed nitrate distribution in the subtropical North Pacific is characterized by a negative anomaly between the winter mixed layer and 254 m. Its presence indicates that nitrate remineralization in the upper thermocline is significant from Rudolf model. It has been suggested that this anomaly is created during nutrient uptake by vertically migrating dinoflagellates. We report measurements of nitrate uptake by vertically migrating dinoflagellates (VMD) by measuring the decrease in nitrate concentration with depth. We found that nitrate uptake by VMD was significant and that the uptake rate was highest in the uppermost layers. The uptake rate was found to be highest in the uppermost layers and to decrease with depth. The results indicate that nutrient uptake by VMD is an important process in the nutrient cycle in the North Pacific.

OS41-D Poster: Circulation and mixing on the continental shelf in the North Atlantic

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The circulation and mixing on the continental shelf in the North Atlantic is an important process in determining the distribution of nutrients and the biological productivity. This poster presents results from a study that investigated the circulation and mixing on the continental shelf in the North Atlantic. The study used a combination of in situ observations and numerical models to investigate the circulation and mixing on the continental shelf. The results show that the circulation and mixing are influenced by the local topography and bathymetric features. The study also highlights the importance of the continental shelf in determining the distribution of nutrients and the biological productivity in the North Atlantic.

OS41-D Poster: Physical and biological interactions in the Arctic

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The poster presents results from a study that investigated the physical and biological interactions in the Arctic. The study used a combination of in situ observations and numerical models to investigate the physical and biological interactions in the Arctic. The results show that the physical and biological interactions are influenced by the local topography and bathymetric features. The study also highlights the importance of the Arctic in determining the distribution of nutrients and the biological productivity.

Vertical Fine Structure Beneath the Ice of the Western Antarctic Peninsula Shelf in Autumn 2001

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As part of the U.S. Southern Ocean GLOBEC program, we deployed 14 satellite-tracked drifters near Marguerite Bay, Antarctica, to characterize the ice pack beneath the ice sheet during March-May, 2001. We investigate the subsurface circulation and biological productivity in the Antarctic Peninsula region. Our results show that the ice pack is an important barrier to the heat transfer between the sea surface and the underlying ocean. The ice pack also plays a role in the nutrient cycle by trapping nutrients in the upper layers of the ocean. The results suggest that the ice pack is a key factor in determining the distribution of nutrients and the biological productivity in the Antarctic Peninsula region.