



SOLAS Open Science Conference 2009

Barcelona, 16th-19th November 2009

Discussion Session Proposal

Discussion session proposal form

	Convener	Co-convener (if any)	Rapporteur
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Session title	Atmospheric control of nutrient cycling and production in the surface ocean		
Background and motivation, e.g. research question (max. 150 words, no figures/ tables)	<p>Atmospheric deposition is an important pathway for nutrient delivery to the surface ocean that may increase in significance in response to climate change. Atmospheric nutrient supply modifies nutrient inventories and influences phytoplankton nutrient stoichiometry, with feedbacks to atmospheric CO₂ via air-sea exchange and the ocean carbon sink. Yet, despite major advances in determination of spatio-temporal variability of nutrient deposition and biological impacts, the links between atmospheric deposition, ocean productivity and nutrient cycling remain poorly understood. Consequently atmospheric nutrient supply is not well represented in budgets and models. This session will address key questions, including aerosol composition from uplift to deposition, the influence of different nutrient regimes on response to deposition, and future variation in atmospheric nutrient supply, with the aim of identifying new research directions and developing coordinated approaches to monitoring and testing surface ocean biota sensitivity to atmospheric deposition.</p>		
Intended outcome, action or product following the discussion session (max. 50 words)	<p>recommendations for future avenues of research to SOLAS SSC, and SOLAS White Paper Report to IGBP Synthesis, Integration and Exploration activity and Key questions for IGBP Fast Track Initiative Report for SOLAS News</p>		