

Understanding biogeochemical-physical interactions (SOLAS/IMBER) and physical oceanographic controls on marine species - European Geosciences General Assembly 2010 02-07 May 2010 Vienna, Austria.

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The Surface Ocean- Lower Atmosphere study (SOLAS) and Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) projects had a joint special session at the European Geosciences Union General Assembly 2010. This joint session comprised many aspects of marine biogeochemistry and ecosystem dynamics and their links to lower atmosphere and climate change effects. The total number of presentations was 35.

Our first keynote speaker Peter Liss focused on interactions of ozone in the atmosphere-ocean system. Peter presented results of laboratory experiments, which show that iodide ions and organic material are involved as reactants with ambient levels of ozone, with both iodine ions and organic matter of approximately equal importance in enhancing the interfacial transfer. The subsequent talks presented highlights of the oceanic and atmospheric halocarbon measurements during tropical western

Pacific cruises, halocarbon emissions, sources and the relationship between iodinated and brominated methane emissions and various phytoplankton functional groups, as derived from in situ and satellite measurements.

The importance of understanding the physical, as well as biological processes that regulate gas exchange in the marginal ice zone were highlighted by a group from Woods Hole Oceanographic Institution (WHOI); the results show that CO₂ flux through sea ice represents 13-34% of the net annual air-sea flux. SCOR Working Group 131 gave an overview of the legacy of the *in situ* Iron Enrichment Experiments database that they put together which spans data from IronEx I in 1993 to SEEDS II in 2004. Results of a 3D coupled hydrodynamical (ROMS) and biogeochemical (BioBUS) model used in the Namibian Upwelling System were presented by a young researcher from LEGOS, Toulouse. Results suggested that due to denitrification on the continental shelf, the Walvis Bay area could potentially be a net source of N₂O for the atmosphere.

Results from the Equatorial Atlantic presented how difficult to measure upwelling and associated heat flux rates could be inferred using the helium isotope disequilibrium method.

The focus of the second part of the session was more on IMBER oriented research. The session started with the second keynote speaker Carol Turley who presented an overview on ocean acidification, related concerns and actions. A variety of presentations covered topics from ocean biogeochemistry to physical controls on marine species and the corresponding poster session included a diversity of interesting topics. The diversity of topics presented made this session one of the most interesting and popular sessions of the whole meeting. We are hoping to put together a similar session for the 2011 EGU, so please consider submitting your research to our session early next year.

Programme details from the session can be found at <http://meetingorganizer.copernicus.org/EGU2010/session/2470>

Surface Ocean CO₂ Atlas (SOCAT) Southern Ocean regional meeting

16-18 June 2010 Hobart, Tasmania, Australia

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In June 2009, during the SOCAT meeting in Norwich (see <http://www.ioccp.org/Workshops.html> or <http://www.socat.info> for report), it was decided that the Southern Ocean SOCAT group would organise a meeting in Hobart, Tasmania.

From 16-18 June 2010, the Southern Ocean and Indian Ocean SOCAT groups (16 participants) met in Hobart to discuss a) progress on the SOCAT Quality Control, b) revisiting LAS tools for SOCAT developed by Jeremy Malczyk and Steve Hankin at NOAA/PMEL, c) future observations in the regions and d) to consider synthesis related to the SOCAT database, including for delivering products for the AR5. The progress on the Pacific SOCAT group was also reported.

The Southern and Indian Ocean groups agreed to finalise the SOCAT QC2 analysis before October 2010, with a proposed public release of SOCAT in April 2011. The SOCAT regional groups for the Atlantic, Pacific and Coastal Oceans are being approached to seek agreement on suitable timelines for release of the database.

The Southern and Indian SOCAT meeting in Hobart was supported by IOCCP, SOLAS and CSIRO, with national support from Japan

and France. Many people at CSIRO-Hobart have contributed to the success of this meeting. We would especially like to thank Kristina Paterson and Bernadette Sloyan.

A complete report of this meeting will be available soon on the IOCCP, SOCAT, SOLAS and IMBER websites.

Photo: Southern and Indian Oceans SOCAT participants enjoyed a sunny day in Hobart during austral winter (16-18 June 2010).

