

Deepwater moorings



Research Projects

Response of pteropods to ocean acidification, University of Tasmania, Antarctic Climate and Ecosystems Cooperative Research Centre, D Roberts, William Howard, Stephen Bray, Tom Trull, 2009-2012, Partner Institution(s): ACE CRC, Department of Climate Change

NWP marine flux validation in the Australian region, Bureau of Meteorology, Eric Schulz, 2010-2012

Building long-term climate quality air-sea flux record in Southern Ocean, Bureau of Meteorology, Eric Schulz

Postgraduate Research Projects

Doctor of Philosophy (PhD), Late Pleistocene Palaeoceanographic and Geochemical Evolution of the South Tasman Rise, University of Tasmania, Antarctic Climate and Ecosystems Cooperative Research Centre; Andrew Moy, 2000-2005, Supervisor(s): William Howard

Doctor of Philosophy (PhD), Subantarctic zone nitrogen cycling, Princeton University; Peter DiFiore, 2006-2010, Supervisor(s): D Sigman

Doctor of Philosophy (PhD), The role of aggregation in the control of particulate carbon export, Bremen University; Friederike Ebersbach, 2006-2010, Supervisor(s): Dieter Wolf-Gladrow, Tom Trull

Doctor of Philosophy (PhD), Nitrogen isotopic fractionation during phytoplankton assimilation of nitrate, Princeton University, University of Tasmania; Kirsten Karsh, 2006-2011, Supervisor(s): D Sigman, Tom Trull

Doctor of Philosophy (PhD), Coccolithophores Evolution and Calcification patterns of the late Quaternary in the Southern Ocean, University of Tasmania; Joana Cubillos, Supervisor(s): William Howard, Gustaf Hallegraeff

Book

Book Chapters

Community White Papers / Technical Papers

Conference Proceedings

Pender, L, Trull, T, McLaughlin, D, Lynch, T 2010, Pulse - a mooring for mixed layer measurements in the open ocean and extreme weather, Proceedings of the IEEE Oceans 2010 Conference, Sydney, May 2010, Sydney

Trull, T, Schulz, E, Bray, SG, Pender, L, McLaughlin, D, Tilbrook, B, Rosenberg, M, Lynch, T 2010, The Australian Integrated Marine Observing System Southern Ocean Time Series facility, Proceedings of the IEEE Oceans 2010 Conference, Sydney, May 2010, Sydney

In Press

Ebersbach, F, Trull, T, Davies, DM, Bray, SG 2010, Controls on near-surface sinking particle fluxes in the Sub-Antarctic and Polar Frontal Zones in the Southern Ocean south of Australia in summer – perspectives from free-drifting sediment traps, Deep Sea Research Part II

Journals

Boyd, PW, Trull, T 2006, Understanding the export of biogenic particles in oceanic waters: is there consensus?, Progress in Oceanography, vol. 72, no. 4, pp. 276-312, doi:10.1016/j.pocean.2006.1010.1007.

Cubillos, JC, Wright, SW, Nash, G, Salas, MF, Griffiths, B, Tilbrook, B, Poisson, A, Hallegraeff, GM 2007, Calcification morphotypes of the coccolithophorid *Emiliana huxleyi* in the Southern Ocean: changes in 2001 to 2006 compared to historical data, Marine Ecology Progress Series, vol. 348, pp. 47-54, doi:10.3354/meps07058

Bowie, AR, Lannuzel, D, Remenyi, TA, Wagner, T, Lam, PJ, Boyd, PW, Guieu, C, Townsend, AT, Trull, T 2009, Biogeochemical iron budgets of the Southern Ocean south of Australia : Decoupling of iron and nutrient cycles in the subantarctic zone by the summertime supply, Global Biogeochemical Cycles, vol. 23, no. GB4034, doi:10.1029/2009GB003500

Moy, AD, Howard, WR, Bray, SG, Trull, T 2009, Reduced calcification in modern Southern Ocean planktonic foraminifera, Nature Geoscience, vol. 2, no. 4, pp. 276-280, doi:10.1038/NGEO46

DiFiore, PJ, Sigman, DM, Karsh, K, Trull, T, Dunbar, R, Robinson, R 2010, Poleward Decrease in the Isotope Effect of Nitrate Assimilation across the Southern Ocean, Geophysical Research Letters, vol. 37, doi:10.1029/2010GL044090

Schulz, E, Grosenbaugh, MA, Pender, L, Greenslade, DJM, Trull, T 2011, Mooring design using wave-state estimate from the Southern Ocean, Journal of Atmospheric and Oceanic Technology, vol. 28, no. 10, pp. 1351-1360, doi:10.1174/jtech-d-10-05033.1

Howard, WR, Roberts, D, Moy, AD, Lindsay, MCM, Hopcroft, RR, Trull, T, Bray, SG 2011, Distribution, abundance and seasonal flux of pteropods in the Sub-Antarctic Zone, Deep Sea Research Part II, vol. 58, no. 21-22, pp. 2293-2300, doi:10.1016/j.dsr2.2011.05.031

Reports

Thesis

Moy, AD 2005, Late pleistocene palaeoceanographic and geochemical evolution of the South Tasman Rise

Public Seminars

Conferences, Symposia or Workshops

Conference Oral Presentation

Schulz, E, Trull, T; The Australian Integrated Marine Observing System Southern Ocean Time Series Program, National Institute of Water and Atmospheric Research, Wellington, NZ, Nov. 2007; Australian Meteorological and Oceanographic Society (AMOS) Conference, 29/01/2008 - 01/02/2008, Geelong, Presenter(s): Eric Schulz

Schulz, E; Air-Sea Flux Observing Efforts in the Southern Ocean; Australia - New Zealand Climate Forum 2010, 13/10/2010 - 15/10/2010, Hobart, Presenter(s): Eric Schulz

Baird, ME, Oke, PR, Everett, JD, Griffin, DA, Doblin, M, Pender, L, Suthers, I; Dynamics of a surface gravity current in a cold-core eddy in the western Tasman Sea; Australian Marine Science Association Conference, 03/07/2011 - 07/07/2011, Fremantle

Sloyan, B, Wijffels, S; Sustained monitoring in the Timor Passage and Ombai Strait: Components of the Indonesian throughflow; Australian Marine Science Association Conference, 03/07/2011 - 07/07/2011, Fremantle, Presenter(s): Bernadette Sloyan

Meeting Presentation

Schulz, E, Josey, S; Southern Ocean Air-Sea Fluxes: Recent Developments; CLIVAR/CliC/SCAR Southern Ocean Region Implementation Panel 6th Meeting, 14/06/2010 - 17/06/2010, Southampton, Presenter(s): S Josey

Speer, K; Results of SOFS-NCEP validation; NSF Office of Polar Programs advisory committee meeting, 10/11/2010 - 10/11/2010, Arlington, Presenter(s): Kevin Speer

Sloyan, B; IMOS long term monitoring of the East Australian Current; SPICE Science Planning Meeting, 13/04/2011 - 15/04/2011, Hobart, Presenter(s): Bernadette Sloyan

Symposium Presentation

Trull, T; Quantifying the biological carbon pump using SOTS observations; ACE CRC Annual Symposium Carbon Program, 19/08/2010 - 19/08/2010, Antarctic Climate and Ecosystems Cooperative Research Centre, Hobart, Presenter(s): Tom Trull

Workshop Presentation

Trull, T; Australian Southern Ocean Carbon Cycle Research – Developing Opportunities for Collaboration; Ocean Carbon and Biogeochemistry Workshop, 10/07/2006 - 13/07/2006, Woods Hole Oceanographic Institute, Woods Hole, Presenter(s): Tom Trull

Trull, T; SOTS science goals and design parameters; Changing Times: International Ocean Biogeochemical Time-series Workshop, 05/11/2008 - 07/11/2008, Scripps Institution of Oceanography, San Diego, Presenter(s): Tom Trull

Pender, L, Trull, T, McLaughlin, D, Griffiths, B; SOTS design goals ; Office of Naval Research/Marine Technology Society - Buoy Workshop, 04/03/2009 - 06/03/2009, St. Louis, Presenter(s): L Pender

Schulz, E; Air-Sea Flux Verification over the Ocean; ACCESS Model Evaluation Workshop, 29/04/2010 - 29/04/2010, Bureau of Meteorology, Melbourne, Presenter(s): Eric Schulz

Bowie, AR; The need for observing the ocean at high temporal frequency to determine ocean carbon uptake and resultant ocean acidification; ACE CRC Research Users Forum, 15/06/2010 - 17/06/2010, Canberra, Presenter(s): Tom Trull

Trull, T; Advantages of basing international process studies in the well monitored waters south of Australia; ISIS Consortium Workshop on Ocean Iron Fertilization Research, 12/07/2010 - 14/07/2010, Woods Hole Oceanographic Institute, Woods Hole, Presenter(s): Tom Trull

Trull, T; Australian SAZ Programs; Workshop on the Seasonal Cycle of the Carbon-Climate System in the Southern Ocean, 23/08/2010 - 25/08/2010, Cape Town, Presenter(s): Tom Trull