

Dr Graham Hosie - Visiting Professor 2013 Report on Activities

Southern Ocean CPR and Zooplankton Taxonomy Course

The course was conducted from Monday 2 to Friday 13 March 2015 at the laboratories of the Oceans and Coasts Research unit of the South African Department of Environmental Affairs in Cape Town. The course was conducted by Dr Graham Hosie, creator and former Director of the SCAR Southern Ocean CPR Survey, and Marco Worship who oversees CPR operations by DEA. The course was hosted by Dr Sir Hans Verheye who leads the Benguela Current CPR Survey and South Africa's CPR work in the Southern Ocean. Course participants comprised marine research technicians, research assistants and researchers with various prior experience in plankton research and sampling methods.

The main purpose of the course was to provide instruction in the methods used by the Southern Ocean CPR Survey. This included cutting the CPR silks into standard 5 nautical segments by applying the SO-CPR software to GPS and underway environmental data, the off-silk counting method for zooplankton, identification of Southern Ocean zooplankton, use of standardised counting sheets, data quality control and error checking and preparing data for the SCAR Southern Ocean CPR Database. Most of the course focussed on Southern Ocean zooplankton taxonomy. All taxonomic groups were reviewed in relation to principal diagnostic features, ease or difficulty in identification of some groups, developmental stages of Antarctic krill (a key Antarctic species) and other euphausiids, and counting rules for each group as set at the SO CPR Standards Workshop, Tokyo 2010.

The course also included tutorials on general theory of the CPR, including history, how the CPR works, what it can deliver, its limitations, and the role of GACS in linking and fostering CPR surveys and research on a global scale. Marco also gave a hands-on demonstration on maintenance and preparation of the CPR, preparing cassettes and loading silk. The use of formalin and other health and safety issues, use of log books, record keeping, and using underway environmental data were also discussed during the course.

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