



Census of Antarctic Marine Life

in conjunction with the SCAR Open Science Conference

Workshop: Processes of Colonisation and Dispersal — how they shape the Biodiversity of Antarctic Marine Ecosystems

Hobart, Tasmania, Australia 2 pm 11 July 2006

Introduction

The Census of Antarctic Marine Life (CAML) lies within SCAR's project *Evolution and Biodiversity in the Antarctic: the response of life to change*. CAML is investigating the distribution and abundance of Antarctica's vast marine biodiversity, to develop a benchmark during the International Polar Year (IPY) for the future benefit of humankind. For further information, see the Science Statement at www.caml.aq

Objectives

The Workshop will bring together the Scientific Steering Committee of CAML and interested guests, to consider the questions below. The outcomes will guide CAML and its clustered projects in the fieldwork during IPY.

Questions for discussion

- Are there endemic species in Antarctic Waters? In studies of cryptic species, to what extent have we underestimated the diversity of Antarctic biota? Can innovative tools of molecular biology such as barcoding assist in tracking the larval dispersal of marine invertebrates?
- Are specialist species associated with "extreme" environments in Antarctica e.g. chemoautotrophs in the cold seep under the Larsen B ice shelf? How do these species colonise and maintain their populations? How is climate change influencing them e.g. disintegration of the ice shelf?
- What is the role of geostrophic currents in the structure of populations and gene flow in the Southern Ocean? How does the Antarctic Circumpolar Current System affect colonisation? Do dispersal patterns differ between Antarctic and Arctic?
- What is the impact of glaciation—are there evolutionary links between continental shelf and abyssal species? Are there recent evolutionary radiations in the Antarctic? Will the modelling of environmental change and evolutionary responses facilitate the prediction of change in Antarctic ecosystems?

Convenor and Planning

If you are interested in attending this workshop, please send an email to the workshop convenor at victoria.wadley@aad.gov.au. Contributions and topics for discussion are welcome, prior to the workshop.

Sponsors

CAML is part of the global Census of Marine Life, for which SCAR receives a grant for scientific coordination from the Alfred P. Sloan Foundation, New York.

Members of the Scientific Steering Committee Meeting – please note:

The Scientific Steering Committee of CAML will meet at 9 am – 1 pm on 11 July, prior to the Workshop.