

Professor Eugene J. Murphy

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Professor Eugene Murphy has led the ocean ecosystem research programme of the British Antarctic Survey (BAS) over the last two decades. He has a broad multidisciplinary research background and has published extensively in aspects of physical and biological oceanography and studies of population processes, food webs and whole ecosystems. He also has extensive experience in Southern Ocean field studies, including leading large scale multidisciplinary research projects and development of long term observations series. He has particular expertise in modelling ecological processes and systems and his current major research interests are in understanding the structure and functioning of ocean scale ecosystems and their responses to climate change and fisheries. He was an active scientist in CCAMLR scientific working groups for over 15 years and has continued to contribute to the development of CCAMLR science and policy through his role as the BAS Ecosystems Science Leader. Over the last 15 years he has led the development of the Integrating Climate and Ecosystem Dynamics in the Southern Ocean (ICED) programme, which has generated major advances in our understanding of the structure and functioning of Southern Ocean ecosystems and their responses to change. For more than a decade he has also been a leading scientist in the global ocean Integrated Marine Biosphere Research (IMBeR) programme, contributing to the development of analyses of global ocean ecosystems and the impacts of climate change and human activities.

Integrating Climate and Ecosystems Dynamics in the Southern Ocean: the first decade and beyond

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The Integrating Climate and Ecosystems Dynamics in the Southern Ocean programme (ICED) is an international multidisciplinary programme developing analyses of Southern Ocean ecosystems. ICED began in 2008 and is focused on analysing the structure and functioning of circumpolar Southern Ocean ecosystems and their responses to climate change and human driven change. Understanding the impacts of climate variability and change in this globally important ocean and the implications for ecosystem dynamics and biogeochemical cycles are crucial for (i) developing conservation and sustainable management approaches, and (ii) evaluating the role of Southern Ocean ecosystems in the Earth System. Here we note some of the major advances in ICED science over the last decade and highlight potential future directions and priorities in Southern Ocean ecosystem science. Discussions at MEASO2018 will be important in informing the next stage in the development of ICED.